## 2012-13 Catalog

The Official Bulletin of
Quinnipiac University

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Quinnipiac University, Hamden, Connecticut
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Admission requirements, fees, rules and regulations and academic programs are updated in official bulletins of the University. The University reserves the right to change the contents of this catalog at any time.

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## Statements on Nondiscrimination and Compliance

Quinnipiac University has a strong commitment to the principles and practices of diversity throughout the University community. Women, members of minority groups and individuals with disabilities are encouraged to consider and apply for admission. Quinnipiac does not discriminate on the basis of race, color, creed, gender, age, sexual orientation, national and ethnic origin, or disability status in the administration of its educational and admissions policies, employment policies, scholarship and loan programs, athletic programs or other University-administered programs.

Quinnipiac is in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, and inquiries should be directed to the Learning Center or to the Office of Human Resources. Quinnipiac complies with the Student Right to Know and Campus Security Act (PL 103-542) and those reports are available from the Office of Public Affairs. Quinnipiac maintains all federal and state requirements for a drug-free campus and workplace; information on student drug and alcohol programs is published in the Student Handbook and employee information is distributed through the Office of Human Resources. Graduation reports are available upon request from the Offices of Admissions and Registrar. Reports on athletic programs are available from the Department of Athletics and Recreation.

## Dear Students,

The essence of a university lies in its people and in its programs. We at Quinnipiac University have reason to be proud of our programs and all the members of our University community. We take care to ensure that the students who enroll at Quinnipiac are prepared to make their contributions as responsible professionals and community leaders in a culturally rich and diverse society.

As you look through the pages of the catalog, consider the three values upon which Quinnipiac University was founded: high-quality academic programs, a student-oriented environment and the fostering of a sense of community among all of the members of the Quinnipiac family. We continue to be committed to these important values and to providing the best possible living and learning environment for our students.

I welcome you to Quinnipiac University, and I look forward to seeing you on campus.



John L. Lahey
President

## Accreditations and Professional Memberships

Quinnipiac University is accredited by the New England Association of Schools and Colleges, Inc., which accredits schools and colleges in the six New England states. Accreditation by the association indicates that the institution has been evaluated carefully and found to meet standards agreed upon by qualified educators.

Quinnipiac also is accredited by the Board of Higher Education of the state of Connecticut and is authorized by the General Assembly of the state to confer such degrees and grant such diplomas as are authorized by the board.

All programs in health sciences have been approved by appropriate state and national agencies or are in the process of accreditation. The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). The undergraduate and the master of science in nursing program are accredited by the National League for Nursing Accrediting Commission (NLNAC). Both the undergraduate and graduate nursing programs are seeking accreditation with the Commission on Collegiate Nursing Education (CCNE). The physician assistant program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA). The pathologists' assistant program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The athletic training program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

The bachelor's degree program in diagnostic imaging is accredited by the Joint Review Committee on Education in Radiologic Technology. The cardiovascular perfusion program is accredited by the Commission on Accreditation of Allied Health Education Programs.

Quinnipiac's undergraduate and graduate business programs are accredited by AACSB InternationalThe Association to Advance Collegiate Schools of Business. As a school of business with AACSBaccredited business programs, Quinnipiac meets or exceeds established standards, as determined by periodic AACSB peer group review. The AACSB quality standards relate to curriculum, faculty resources, admission, degree requirements, library and computer facilities, financial resources and intellectual climate. The BS in computer information systems program is accredited by ABET, Inc.

The State Bar Examining Committee has approved the undergraduate programs of Quinnipiac for prelaw education, and the American Bar Association has approved the legal studies bachelor's degree program.

Quinnipiac has received full approval from the American Bar Association to award the JD degree through the Quinnipiac University School of Law. The American Bar Association also has acquiesced in the offering by the Quinnipiac University School of Law of the Master of Laws in Health Law (the "Health Law LLM"). (Under its standards, the ABA does not "approve" post-JD programs such as the LLM, but only considers whether it will or will not "acquiesce" in such proposed programs at an accredited law school.) The Quinnipiac University School of Law is also a member of the Association of American Law Schools.

The master of arts in teaching program is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Connecticut Department of Education. The U.S. Department of Education recognizes NCATE as a specialized accrediting body for schools, colleges and departments of education. The educational leadership program is fully accredited by the CT State Department of Education and is aligned with the leadership standards of NCATE.

Students may review information on the various accrediting agencies and accrediting reports by contacting the Office of the Senior Vice President for Academic and Student Affairs.

Quinnipiac reserves the right to change any provisions of this catalog at any time.

## General Information

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## 2012-13 Academic Calendar*excludes School of Law

## Fall 2012

August 22-26
August 27
August 31
September 3
September 8
September 22
September 26
October 12-13
October 20
November 2*
November 10
November 19-24
November 22-23
December 8*
December 10-15*
December 17
Dec. 24-Jan. 1

## January Term 2013*

January 1
January 2
January 18
January 21
January 22

Wed-Sun
Monday
Friday
Monday
Saturday
Saturday
Wednesday
Fri-Sat
Saturday
Friday
Saturday
Mon-Sat
Thurs-Fri
Saturday
Mon-Sat
Monday
Mon-Tues

Tuesday
Wednesday
Friday
Monday
Tuesday

New undergraduate student orientation
Undergraduate and graduate classes begin
Last day for late registration/schedule changes
Labor Day—University holiday; no classes
All Saturday classes begin
Open House for prospective undergraduate students
Yom Kippur—University holiday; no classes
Parents \& Family Weekend
Open House for prospective undergraduate students
Last day to withdraw from undergraduate and graduate classes with a grade of "W"
Open House for prospective undergraduate students
No classes
Thanksgiving holiday-University closed
Undergraduate and graduate classes end
Final examination period-undergraduate and graduate classes
Final grades due
University closed

New Year's Day—University holiday Undergraduate and graduate classes begin
Classes end; final examinations
Martin Luther King Jr. Day—University closed; no classes
Final grades due

New undergraduate student orientation
Martin Luther King Jr. Day—University holiday; no classes
Undergraduate and graduate classes begin
Last day for late registration or schedule changes
Saturday classes begin
Undergraduate and graduate spring recess
Admitted Student Days
Good Friday—University holiday; no classes
Last day to withdraw from undergraduate classes with a grade of "W"
Undergraduate and Senior Award Ceremonies
Undergraduate and graduate classes end
Final examination period-undergraduate and graduate classes
Graduate and Law Commencements
Final grades due; Junior Open House for prospective students
Undergraduate Commencement
Memorial Day-University holiday
New Student Orientation
New Student Orientation
New Student Orientation

Summer Term 2013 (dates may change)
Summer I
May 28-June 29 (5 weeks)
May 28-July 13 ( 7 weeks)
July 4-University holiday; no classes
Summer II

Fall 2013
August 21-25
August 26
August 30
September 2
September 7
September 13
September 14
September 21
October 19
October 25-27
November 1*
November 9
November 25-30
November 28-29
December 7*
December 9-14*
December 17
Dec. 24-Jan. 1
January Term 2014*
January 2
January 17
January 20
January 21
Spring 2014
Jan. 16-17
January 20
January 21*
January 25
January 27
March 10-15
March 28*
March 29-30
April 12
April 18
May 3*
May 5-10*
May 11
May 12
May 18
May 26
TBD/ June

Wed-Sun
Monday
Friday
Monday
Saturday
Friday
Saturday
Saturday
Saturday
Fri-Sun
Friday
Saturday
Mon-Sat
Thurs-Fri
Saturday
Mon-Sat
Tuesday
Tues-Wed

Thursday
Friday
Monday
Tuesday

Thurs-Fri
Monday
Tuesday
Saturday
Monday
Mon-Sat
Friday
Sat-Sun
Saturday
Friday
Saturday
Mon-Sat
Sunday
Monday
Sunday
Monday

Summer Term 2014
Summer I

Summer II

New undergraduate student orientation
Undergraduate and graduate classes begin
Last day for late registration/schedule changes
Labor Day—University holiday; no classes
All Saturday classes begin
Yom Kippur-University holiday; no classes
No classes
Open House for prospective undergraduate students
Open House for prospective undergraduate students
Parents \& Family Weekend
Last day to withdraw from undergraduate and graduate classes with a grade of "W"
Open House for prospective undergraduate students
No Classes
Thanksgiving holiday-University closed
Undergraduate and graduate classes end
Final examination period-undergraduate and graduate classes
Final grades due
University closed

Undergraduate and graduate classes begin
Classes end; Final examinations
Martin Luther King, Jr. Day—University holiday; no classes
Final grades due

New undergraduate student orientation
Martin Luther King, Jr. Day—University holiday; no classes
Undergraduate and graduate classes begin
Saturday classes begin
Last day for late registration or schedule changes
Undergraduate and graduate spring recess
Last day to withdraw from undergraduate classes with a grade of "W"
Admitted Student Days
Undergraduate and Senior Award Ceremonies
Good Friday—University holiday; no classes
Undergraduate and graduate classes end
Final examination period-undergraduate and graduate classes
Graduate and Law Commencements
Final grades due; Junior Open House for prospective students
Undergraduate Commencement
Memorial Day—University holiday; no classes
New Student Orientation

May 19-June 21 ( 5 weeks)
May 19-July 3 ( 7 weeks)
July 7-August 8 (5 weeks)
The University reserves the right to revise this calendar.

## About Quinnipiac University

Quinnipiac today is a thriving, three-campus university located in southern Connecticut. It offers more than 70 programs to 6,000 undergraduates and more than 2,000 graduate and law students.

The University, founded in New Haven in 1929 with an emphasis on business, was known as the Connecticut College of Commerce until it changed its name in 1951 to Quinnipiac College. Soon thereafter, having outgrown its New Haven surroundings, the University moved to its 250-acre Mount Carmel Campus in Hamden, Conn., 90 minutes north of New York City, two hours from Boston and eight miles from metropolitan New Haven.

In 2000, the name Quinnipiac University was adopted to better reflect the quality and diversity of the school's programs at both the undergraduate and graduate levels.

Over the years, Quinnipiac has experienced dramatic and steady growth in the quality and scope of its academic programs. The early focus on business has now expanded to include nationally recognized programs in health sciences, communications, education, law, nursing and arts and sciences.

In 2007, Quinnipiac dedicated its TD Bank Sports Center, the first of several buildings on its 250-acre York Hill Campus. The center houses separate arenas for the University's Division I men's and women's ice hockey and basketball teams. York Hill also contains residence halls for 2,000 students, the Rocky Top Student Center and fitness facility, and a 2,000-car parking garage.

A third 104-acre campus in nearby North Haven serves as home to the School of Education, the School of Health Sciences and the School of Nursing, the Frank H. Netter MD School of Medicine, as well as many graduate programs.

Throughout its history, Quinnipiac has remained true to its three core values: high-quality academic programs, a student-oriented environment and a sense of community.

The University is easily reached via the Connecticut Turnpike (Interstates 95 and 91), the Merritt Parkway (Route 15) and Interstate 84.

## Quinnipiac University Mission Statement

An education at Quinnipiac embodies the University's commitment to three core values: high-quality academic programs, a student-oriented environment and a strong sense of community. The University prepares undergraduate and graduate students for achievement and leadership in business, communications, health, education, law, nursing and the liberal arts and sciences.

Quinnipiac University educates students to be valued and contributing members of their communities through a vital, challenging and purposeful educational program. Students engage real-world issues through practice and the consideration of different perspectives. The University's innovative QU seminar series further prepares undergraduates to understand their role and responsibilities as members of the Quinnipiac community, as well as the larger national and global communities.

To fulfill its educational mission Quinnipiac:

- offers degree programs centered on effective practice that are strengthened by the integration of a liberal education;
- cultivates critical thinking, intellectual integrity, curiosity and creativity in the pursuit of knowledge;
- provides a variety of learning and service experiences to facilitate student achievement;
- maintains a strong commitment to a diverse and inclusive student body, faculty and staff;
- fosters an understanding of and respect for the multiplicity of human perspectives and belief systems;
- supports faculty teacher-scholars who are effective teachers and who engage in scholarship with valuable intellectual and practical results.


## A Student-Oriented University

Quinnipiac is committed to making each student's experience a satisfying and rewarding one. It strives to do this in both personal and academic contexts. Students are represented on all key bodies involved in decision making, including the Board of Trustees.

The Student Government Association is involved in fundamental University issues, as well as ongoing campus events. Activity clubs, organizations, societies, fraternities, sororities and ethnic, religious, cultural and political groups all play important roles in the day-to-day life of the community.

In keeping with the value system at Quinnipiac, emphasis is on the individual, not on social or economic standing. Students are selected solely on the basis of merit and qualifications, with major consideration given to the innate qualities of motivation and character.

As a result, the student body reflects a wide spectrum of racial, religious and economic backgrounds, personalities and lifestyles that provide diverse social and cultural experiences. The cosmopolitan student community represents 26 states throughout the United States as well as 14 countries abroad.

## Center for Excellence in Teaching and Service to Students

The Center for Excellence in Teaching and Service to Students encourages, supports and recognizes superior teaching and service to students at Quinnipiac University. The center serves as an important vehicle in helping the University achieve its educational mission, consistent with its three core values: high-quality academic programs, a student-oriented environment and a sense of community.

The center sponsors a variety of professional development programs and activities using its own role models and expertise within the faculty and staff, as well as external consultants and experts. It also sponsors workshops and seminars, conducts student, faculty and staff surveys, and hosts special recognition events. The annual Excellence in Service to Students Award and Excellence in Teaching Award reflect the highest recognition of excellence at Quinnipiac University.

The center is supported through the president's office and is guided by a rotating board of directors consisting of representatives from the faculty, staff and students.

## A Community of Learning

Effective learning takes place at many levels beyond the traditional teacher-classroom situation, and Quinnipiac encourages flexibility in the learning process.

Students in the School of Health Sciences and School of Nursing use hospitals and medical and research centers for their clinical laboratory experiences. Students in the School of Business have working contact with private and public

business operations. Students in the School of Communications complete internships in the broadcast, print and film media, in cable television and sound recording industries, and in various video production, advertising and public relations operations. Students in the College of Arts and Sciences participate in community activities and programs. Students in the School of Education complete internships in public schools.

Recognizing that the learning process has no bounds, Quinnipiac requires students to take a University Curriculum regardless of their enrollment in a particular school or program. Further, as citizens of a learning community, the faculty members interact in the learning process as participants rather than mere dispensers of facts.

The Division of Student Affairs also supports growth and development of the Quinnipiac community through a variety of cocurricular programs that complement academic efforts.

## Admission

## Admission Procedures

Consistent with the University mission, Quinnipiac welcomes inquiries from serious students of all ages who are interested in professional preparation in fields related to health sciences, business, education, engineering, communications, nursing, public service, and the theoretical and applied disciplines in arts and sciences. An education at Quinnipiac integrates technical, professional and liberal studies. The students who benefit most from Quinnipiac are those who are motivated for a life of professional service and prepared to undertake a program of studies that is broad in its cultural perspectives, while being focused in its technical and professional dimensions. Quinnipiac University seeks students who wish to pursue professional careers, including those who, as yet, are undecided on their fields.

Students interested in Quinnipiac University are urged to acquaint themselves thoroughly with Quinnipiac as early in their decision-making process as possible. A campus visit and admissions interview is strongly recommended. If a campus visit is not possible, prospective students are advised to meet with one of Quinnipiac's representatives when they visit the student's school, or to make arrangements for a telephone conference. The admissions office hosts on-campus interviews Monday through Friday year-round and group information sessions weekdays throughout the year and on Saturday mornings during the fall and spring semesters. Fall and spring open houses, Admitted Student Days (in late March and early April) and online chat sessions also provide opportunities to learn more about Quinnipiac. We welcome your interest. Please call our toll-free number, 800-462-1944 or 203-582-8600, visit our website www.quinnipiac.edu/visit, or email us at admissions@quinnipiac.edu.

## Admission Requirements

Admission to Quinnipiac University is competitive, and applicants are expected to present a strong college prep program in high school, along with official scores of all standardized tests taken (SAT and/or ACT). The admissions staff looks for a B or higher grade point average in a challenging academic program through the senior year, and uses the highest individual scores on the SAT in critical
reading, math and writing or the highest ACT composite score. The admissions website provides a range of information on the number of applicants and average scores, including ethnic and geographic information about the recent incoming class.

All freshman applicants for admission are expected to present:

1. A high school diploma from an approved secondary school or its equivalent.
2. A secondary school transcript showing as completed, or in progress, a college preparatory sequence including: English, four units; mathematics, three units (physical and occupational therapy, nursing and physician assistant applicants should have four years); science, three units (all health science applicants are expected to have biology and chemistry; physical therapy applicants should also have physics); social science, two units; academic (college preparatory) electives, four units. Total academic units expected: 16 . First quarter grades in the senior year should be sent as soon as they are available.
3. All official score results for the Scholastic Reasoning Test (SAT I) of the College Entrance Examination Board (CEEB) or of the American College Testing Program (ACT).
4. A completed Quinnipiac University application, or the Common Application plus Quinnipiac Supplement together with a non-refundable application fee of $\$ 45$.
5. A personal statement or essay ( 250 -word minimum).
6. An interview is recommended but not required.
7. A teacher or counselor letter of recommendation.


## Transfer Requirements

Transfer applicants must submit the documents listed above for freshmen with the following exceptions:

1. An official transcript from each post-high school institution attended, even if no courses were completed.
2. Applicants who graduated from high school more than five years ago or have successfully completed the equivalent of one year ( 30 credits) of college study are not required to submit entrance examination scores.
3. Students seeking a second bachelor's degree need only submit transcripts of their college work and the application form.
4. The application fee for transfer applicants is $\$ 45$.

## International Student Admission

Applications for undergraduate study from international students are welcomed. Upon application, international students are requested to submit English language descriptions of secondary schools, colleges and universities attended.

In addition, applicants from non-Englishspeaking countries also must submit the following documents:

1. Certified translations of all prior secondary and collegiate academic records.
2. Proof of English ability: Test of English as a Foreign Language (TOEFL). Information and registration forms can be found at www.ets.org/toefl. TOEFL Program, Educational Testing Service, Princeton, NJ 08540. A minimum score of 550 (paper) or 80 on the Internet-based TOEFL, or an IELTS score of 6.0 is required for admission.
3. Official documentation of financial support for undergraduate study and living expenses must be submitted to the admissions office before an $\mathrm{I}-20$ can be issued to the student. The statement of financial support can be downloaded from the website.

## Admissions Selection Process

Prospective freshmen are strongly encouraged to file an application as early in the senior year as possible, and arrange to have first quarter grades sent from their high school counselor as soon as they are available. Students applying for PT, PA or nursing should apply by Nov. 15. Students
applying for admission into the physical therapy program must supply documentation of two clinical observations. The online application is easy to access online at www.quinnipiac.edu/apply, or you can file a paper application. Students also may apply using the Common Application and the Quinnipiac Supplement.

File review begins as applications become complete, and students are notified starting in the late fall. A $\$ 200$ matriculation deposit and $\$ 350$ housing deposit are due by May 1. February 1 is the application deadline. Students who are placed on a waitlist are notified by June 1 of any decision. There is an early decision option available for all majors for freshman applicants for the fall. See the website (www.quinnipiac.edu/apply) for details.

Transfer students should apply for admission by mid-November for the Spring (January) semester, or by April 1 for fall (August) entry. Students applying to athletic training, occupational therapy or nursing should apply by March 1. Official transcripts from all institutions attended must be provided. Most programs look for a minimum grade point average of 2.5 (some higher) for consideration. Those interested in the DPT and PA programs may apply at the graduate level.

Quinnipiac works closely with the community and technical colleges in Connecticut and elsewhere, and recommends that students follow a transfer curriculum of study if their plan is to move to a four-year university. Students may wish to arrange an admissions appointment to discuss program requirements.

## University Laptop Program

Teaching faculty design their courses with the expectation that students will have computer technology in the classroom when requested. For that reason, all incoming students must have a laptop that meets our academic requirements and technical standards. To facilitate this need, Quinnipiac offers a laptop program that is cost effective and exceptionally well supported both on and off campus. The recommended laptops are configured so that they meet the core needs of academic programs and are a key part of the campus computing infrastructure, designed to support new teaching and learning. (See p. 49 for more information on Technology Assistance).

## Advanced Standing/Placement

Credits earned prior to admission to Quinnipiac will be evaluated by the Office of Admissions and will then be referred to the dean's office for evaluation. Transfer credit evaluation begins once a student has been admitted, or by request to the Office of Admissions at 203-582-8612.

Quinnipiac University normally grants transfer credit for courses appropriate to the chosen curriculum completed with a grade of C or better at a regionally accredited postsecondary institution. In some cases, course work completed more than 10 years earlier may be disallowed. A student who has completed courses at an institution not granting degrees, or who has extensive experience in a specialized field, may request comprehensive examinations to help determine placement.

Advanced standing or placement will be considered for entering freshmen who have successfully completed college-level credit courses (usually with a grade of C or better on an official transcript) through a recognized college or university, or who have achieved an acceptable score on an appropriate examination of (1) the Advanced Placement Program of the College Entrance Examination Board, (2) the International Baccalaureate, or (3) the College Level Examination Program (CLEP).


## Tuition and Fees

## Summary of Charges

Tuition and fees for 2012-13
Full-time undergraduate students taking ( $\$ 19,000$ per semester) 12-16 credits per semester including student fee

More than 16 credits $\$ 875$ per credit or fewer than 12 credits

A number of courses have an additional fee usually associated with laboratory classes in the sciences.
For more information about tuition and fees, please visit www.quinnipiac.edu/bursar.

Miscellaneous expenses (books, laboratory fees, travel and personal) average $\$ 2,500$ per year.

The University offers a variety of payment plans to help you meet your educational expenses. These plans are available for the fall and spring terms, both on an annual and semester basis. Please note that payment plans are not available for the summer terms. The payment plan is not a loan program and there are no interest or finance charges. The only initial cost to you is a small nonrefundable enrollment fee per agreement.

Families are encouraged to enroll online at www.quinnipiac.edu/bursar-through "e-cashier." Once you have set up your account through this secure website, you can authorize your monthly payments to be electronically sent from your checking, savings or credit card account.

## Resident Fee (Room and Board)

The resident fee (room and board) is an all-inclusive fee for students residing in on-campus housing. The resident fee for students living in a traditional style residence hall is $\$ 13,800$ per year. For students who are living in suite-style residence halls, the resident fee ranges from $\$ 13,800$ to $\$ 14,170$ per year. The resident fee for students assigned to the apartments ranges from $\$ 12,290$ to $\$ 14,590$ per year. The resident fee for students assigned to University-owned, off-campus housing is $\$ 12,990$.

All costs are based on the 2012-13 figures. The Office of Undergraduate Admissions and the University website (www.quinnipiac.edu) can supply financial information.


Quinnipiac requires that all students obtain a University ID card, known as the QCard. Various accounts are associated with the QCard, chiefly the required dining service and QCash.

Quinnipiac requires all resident students, except those living in Whitney Village or off-campus housing, to subscribe to the required dining service. This operates as a prepaid debit account into which students are allocated a specified amount of money as part of their resident fee. The cards can be used to make purchases in the dining locations on each of Quinnipiac's three campuses. Any unused balance from the fall semester may be carried over to the spring (provided that the student is enrolled for the spring semester), but no carryover is permitted from spring to the following fall.

Quinnipiac also offers QCash, a prepaid debit account that can be used to make a variety of cashless purchases. QCash can be used at the campus post office, the bookstore, the dining areas on all three campuses, and for copy, laundry and vending machines. It also is accepted at many popular off-campus business establishments and restaurants. Students may open an account with a deposit of any amount; additional deposits may be made as needed throughout the semester. Balances are carried forward from semester to semester so long as the student is enrolled at Quinnipiac. Refunds of unused QCash are made upon a student's graduation (upon request) or withdrawal from the University.

Please visit www.quinnipiac.edu/qcard to find out more information about the QCard.

## Financial Aid

Quinnipiac seeks to assist each of its students and his or her parents to receive the maximum federal, state and institutional financial aid for which they are eligible. Institutional financial aid is available to full-time undergraduate students demonstrating eligibility according to Quinnipiac application procedures and funding policies. Aid is provided as a "package" which may include grants, scholarships, campus employment (Work Study), and loans. It is the goal of Quinnipiac to coordinate aid eligibility so that a Quinnipiac education is within the means of each student and his or her family.

Quinnipiac's financial aid policy is built on the principle of supplementing student and family contributions toward the cost of attending college. This principle is rooted in the belief that primary responsibility for meeting college costs rests with the student and the family. Financial aid eligibility, therefore, is measured between the cost of attending Quinnipiac and the reasonable support expected from student earnings and savings and from family income, assets and resources. To help Quinnipiac stretch its funds to assist as many students as possible, financial aid applicants are expected to explore all sources of external support for which they might qualify. Check your high school, community and other affiliations for opportunities.

Students should apply for financial aid by filing the Free Application for Federal Student Aid (FAFSA) and the CSS Profile form by March 1. All currently attending students must file the FAFSA for renewal prior to April 1. All students who began their attendance after July 1, 2011, also need to complete the CSS Profile form. All financial aid applicants are required to meet Quinnipiac's standards for satisfactory academic progress for financial aid recipients and applicants. The policy is published in the Student Handbook and is available online and from the Office of Financial Aid.

## Academic Scholarships

A variety of academic scholarships are awarded at the time of entry and are renewable. The value of most academic scholarships ranges from $\$ 6,000$ to $\$ 20,000$ per year. Consideration for all scholarships
is given to students who have provided all application materials by February 1. Visit the website for current academic scholarship award information as well as the criteria for renewal.

## Reserve Officer Training Corps (ROTC)

## Air Force ROTC

Students at Quinnipiac University are able to take AFROTC classes at Yale University and receive commissions as second lieutenants.

The AFROTC program is available to Quinnipiac University students at Yale University's main campus in New Haven. Through the AFROTC program, Quinnipiac University students, without paying extra tuition, can pursue a commission as an officer in the United States Air Force. The freshmen and sophomore courses carry no military obligation and are open to all students. Scholarships also are available for qualified students. These scholarships pay up to full tuition and fees, as well as money for books and a monthly tax-free stipend.

Students enroll in a four-year or three-year (if they join in their sophomore year) AFROTC sequence. Students commute to New Haven on the days listed below for AFROTC-specific classes and events.

Qualified students should contact the AFROTC office at 203-432-9431 or visit the website at yalecollege.yale.edu/content/air-force-rotc-yale.

## AFROTC Courses

USAF 101/102 "The Foundations of the USAF"Thursdays, 10:30-11:20 a.m.
USAF 201/202 "The Evolution of Air/Space Power"Tuesdays and Thursdays, 10:30-11:20 a.m.
USAF 301/302 "USAF Leadership Studies"Tuesdays, 8:30-11:20 a.m.
USAF 401/402 "National Security Affairs/Prep for Active Duty"-Not offered during Academic Year 2012-13 Leadership Laboratory-Thursdays, 8:30-10:30 a.m. Physical Training-Tuesdays, Wednesdays and Fridays, 7-8:30 a.m.

Army Reserve Officers Training Corps (ROTC)
Army Reserve Officers Training Corps (ROTC) offers a commissioning track to all physically qualified students who are citizens of the United States and who meet other specific requirements. Army ROTC furnishes uniforms, textbooks and other related equipment at no expense to students. Successful completion of the program can qualify the student for a commission in the United States Regular Army, Army Reserve, or Army National Guard.

The basic and advanced courses each cover two years. The basic course includes four one-hour lecture courses consisting of 50 minutes of class time and a leadership lab that requires no military obligation. The advanced course requires four 3 -credit courses that meet twice a week for 1.5 hours and a leadership lab.

Quinnipiac students can participate in Army ROTC through the University of Connecticut at Storrs by calling 860-486-4538 or visiting its website at www.armyrotc.uconn.edu.

## Veterans Benefits

Any student who is eligible to receive veterans benefits from the Department of Veterans Affairs must apply to the veterans representative at the Registrar's Office. Such a student must submit a Certificate of Eligibility or Supplemental Certificate of Eligibility prior to the start of classes. Any change in credits, marital status, residence and/or attendance (including withdrawal from the school) must be reported to the veterans representative.

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## Schools and Colleges

All Quinnipiac University programs fall within eight major academic areas:

- College of Arts and Sciences
- Frank H. Netter MD School of Medicine
- School of Business and Engineering
- School of Communications
- School of Education
- School of Health Sciences
- School of Law
- School of Nursing


## Degree Programs

Quinnipiac offers undergraduate programs leading to bachelor of arts or bachelor of science degrees.

## Bachelor of Arts (BA)

Communications (p. 119)
Criminal Justice (p. 80)
English (p. 66)
Film, Video and Interactive Media (p. 116-117)
Game Design and Development (p. 82)
Gerontology (p. 80)
History (p. 68)
Independent Majors (p. 57)
Interactive Digital Design (p. 83)
Journalism (p. 118)
Concentrations:
Broadcast Journalism
Print Journalism
Legal Studies (p. 69)
Liberal Studies (p. 163)
Mathematics (p. 71)
Philosophy (p. 75)
Political Science (p. 75)
Psychology (p. 77)
Concentrations:
Human Services
Industrial/Organizational
Public Relations (p. 120)
Social Services (p. 81)
Sociology (p. 81)
Spanish Language and Literature (p. 73)
Theater (p. 83)

## Bachelor of Fine Arts (BFA)

Film, Video and Interactive Media (p. 117)

## Bachelor of Science (BS)

Accounting (p. 96)
Advertising (p. 110)
Athletic Training (p. 124)
Behavioral Neuroscience (pp. 62, 78)
Biochemistry (p. 63)
Biology (p. 59)
Biomedical Marketing (p. 111)
Biomedical Sciences (p. 128)
Chemistry (p. 63)
Computer Information Systems (p. 97)
Computer Information Systems and Accounting (p. 98)

Computer Science (p. 72)
Diagnostic Imaging (p. 136)
Economics (p. 99)
Engineering, Civil (p. 100)
Engineering, Computer Software (p. 100)
Engineering, Industrial (p. 101)
Engineering, Mechanical (p. 102)
Entrepreneurship and Small Business Management (p. 103)
Finance (p. 106)
Health and Science Studies (pp. 131, 162)
International Business (p. 108)
Management (p. 108)
Marketing (p. 109)
Microbiology/Molecular Biology (p. 132)
Nursing (p. 155)
Occupational Therapy (see MOT, page 139)
Physical Therapy (see DPT, page 144)
Physician Assistant (entry-level) (p. 134)
Premedical Studies (p. 45)

## BA/MAT Program

Elementary Education (pp. 57, 188)
Secondary Education (pp. 58, 188)
Master of Arts in Teaching (MAT) (р. 188)
The master of arts in teaching program for elementary certification prepares students for careers as teachers in elementary schools (grades K-6).

The master of arts in teaching program for secondary education prepares students for careers as teachers in any one or more of the following disciplines: Biology, English, History and Social Sciences, Mathematics, Spanish

## Sixth-Year Diploma in <br> Educational Leadership (p. 195)

The sixth-year diploma in educational leadership program prepares graduates to be exceptional school leaders.

## Master of Science in Teacher Leadership (online) (p. 194)

## Master of Business Administration (MBA)

MBA (p. 178)
MBA/CFA ${ }^{\circledR}$ (Chartered Financial Analyst Track) (p. 180)

MBA/Health Care Management Track (p. 179)
MBA/Supply Chain Management Track (p. 180)
Also:
Combined BA/MBA program (pp. 58, 180)
Combined BS/MBA program (p. 181)
Joint JD/MBA (p. 181)

## Master of Health Science (MHS)

Anesthesiology Assistant (pending approval) (p. 197)
Biomedical Sciences (p. 130)
Cardiovascular Perfusion (p. 198)
Medical Laboratory Sciences with concentrations in Biomedical Sciences, Microbiology and
Laboratory Management (p. 199)
Pathologists' Assistant (p. 201)
Physician Assistant (p. 134, 203)
Radiologist Assistant (p. 205)

## Master of Laws in Health Law (LLM)

Admission is through the School of Law. The law school has its own academic catalog and student services handbook, to which readers should refer for information about School of Law policies, procedures and requirements for academic and other matters.

## Master of Science (MS)

Information Technology (online) (p. 182)
Interactive Media (on campus and online) (p. 185) Journalism (p. 186)
Molecular and Cell Biology (p. 175)
Organizational Leadership (online) (p. 183)
Public Relations (p. 187)
Also:
Combined BS in Athletic Training and Doctor of Physical Therapy (p. 143)

Combined BS/MS in Biology and Molecular and
Cell Biology (pp. 57, 61, 176)
Combined BS/MS in Information Technology (p. 182)

Doctor of Nursing Practice (p. 209)
Adult-Gerontology Nurse Practitioner (post-bachelor's)
Family Nurse Practitioner (post-bachelor's)
Care of Populations (post-MSN)

## Post-Professional Master of Science in Occupational Therapy

Occupational Therapy (p. 206)

## Entry-Level Master of

Occupational Therapy (MOT) (p. 139)
This $51 / 2$-year degree program is the only track for entry-level occupational therapy students, and begins at the undergraduate level (for freshmen and transfer students). As part of the program, students first earn a bachelor's degree in health and science studies.

## Entry-Level Doctor of <br> Physical Therapy (DPT) (p. 144)

This six- or seven-year degree program is the only track for new physical therapy students and begins in the undergraduate freshman year. As part of the program, students first earn a bachelor's degree in health and science studies.

## Entry-Level Master's <br> Physician Assistant Program (pp. 134, 203)

This six-year degree program is designed for qualified students who enter as freshmen earning a bachelor's degree in health and science studies. After successful completion of the undergraduate curriculum, students enter the graduate physician assistant program.

## Juris Doctor (JD)

Quinnipiac University School of Law offers a three-year, full-time day and a four-year, part-time evening program. Admission is through the School of Law. The School of Law has its own academic catalog and student services handbook, to which readers should refer for information about School of Law policies, procedures and requirements for academic and other matters.

## Certificate Programs

Advanced Graduate Study in Occupational
Therapy (post-professional) (p. 207)
Export Marketing (p. 162)
Health Care Compliance (p. 184)
International Purchasing (p. 162)
Long-term Care Administration (p. 184)

## Essential Undergraduate Learning Proficiencies for the 21st Century

Students come to Quinnipiac University eager to develop the knowledge, skills and mindsets that lead to meaningful, satisfying career success. Recognizing the ongoing changes in the world around us, Quinnipiac University supports and broadens these individual aspirations through a rigorous educational experience. Students acquire important skills valued by employers, along with the aptitudes to creatively and responsibly solve problems and use technologies, including those not yet known or invented. We expect our students to become intentional learners who embody confidence and integrity, and who will emerge as informed leaders in their professions, in their communities and in their roles as global citizens in the 21st century.

Deep, disciplinary knowledge lies at the core of a Quinnipiac University education, complemented by a University commitment to prepare students for adaptability, achievement and leadership in a dynamic, unpredictable world. Through a balanced curriculum, Quinnipiac University students examine the forces that have shaped and continue to shape our world, and use this information to integrate their specific interests into the broader context of the local, national and global community. Quinnipiac University graduates are able to consciously and decisively demonstrate a number of key proficiencies essential to the life and practice of a responsible, educated citizen. Graduates acquire these proficiencies through a purposeful integration of the University Curriculum, requirements within one's major, and experiences beyond the classroom.

## Interpersonal Proficiencies

- Written and oral communication-An ability to think critically, clearly and creatively in both
written and oral expression in their areas of interest and expertise.
- Responsible citizenship-An ability to recognize, analyze and influence decisions and actions at the local, national and global community, and to engage as responsible citizens.
- Diversity awareness and sensitivity-An understanding of and respect for the similarities and differences among human communities. This includes a recognition and appreciation for the unique talents and contributions of all individuals.
- Social intelligence-An ability to work effectively with others, to understand and manage interactions, and to act ethically, constructively, and responsibly to achieve individual and common goals.


## Intellectual Proficiencies

- Critical thinking and reasoning-An ability to recognize problems, and to acquire, assess and synthesize information in order to derive creative and appropriate solutions.
- Scientific literacy-An ability to understand and apply scientific knowledge in order to pose and evaluate arguments based on evidence and to make decisions and express positions that are scientifically and technologically informed. A scientifically literate person is able to evaluate the quality of scientific information on the basis of its source and the methods used to generate it.
- Quantitative reasoning-An ability to represent mathematical information symbolically, visually, numerically and verbally, and to interpret mathematical models such as graphs, tables and schematics in order to draw inferences. Also, an ability to use arithmetical, algebraic, geometric and statistical methods to solve problems.
- Information fluency-An ability to find and critically evaluate information from various media, to analyze it, and communicate outcomes in the process of solving problems in a changing and complex world. Also, an ability to use information and computer literacy skills to manage projects and conduct rigorous inquiry.
- Creative thinking and visual literacy-An ability to imagine, create and communicate fresh ideas and approaches that connect to and expand upon knowledge through an understanding of and appreciation for the visual, literary and performance arts.

Quinnipiac undergraduates are provided with a variety of opportunities to personally develop the essential learning proficiencies. These include participation in a vibrant intellectual community, the QU seminar series, the University Curriculum as well as the curricular requirements of their school/college and major-all described in this catalog. Additional learning comes from participation in University activities, student organizations and service opportunities, which are described in the Student Handbook.

## A Vibrant Intellectual Community

Quinnipiac University students participate in a vibrant intellectual community that extends beyond the classroom and emphasizes experiences that foster exposure to new ideas and spirited but civil discussion of controversial issues, undergraduate student research and creativity.

The University sponsors lectures and small group meetings with a variety of distinguished and accomplished leaders. Speakers in the past several years have included a former president of the United States, Nobel Prize winners, awardwinning authors, national media personalities and political candidates. Students and faculty plan, select specific topics, and participate in the University's common discussion theme program, Campus Cross-Talk. During their four years of undergraduate study, students explore and debate issues in each of four recurring themes: sustenance, well-being, security and meaning.

Each school and college of the University and the Office of Academic Affairs support undergraduate research opportunities. In undergraduate research projects, students work closely with a faculty mentor to develop and apply the skills and knowledge needed to conduct independent and original research. The University celebrates the results of undergraduate research projects through campus events and awards. Students often are awarded grants to conduct their research or present their results at sites around the nation and the globe.

Student creativity is fostered in a variety of ways. Our theater program has an extensive community involvement element that includes students from many different majors. "Studio work" is encouraged in the College of Arts and Sciences, while student films are produced by
students who major or minor in the School of Communications. Student photography, art and poetry are featured in the University's studentedited literary magazine, Montage, which sponsors a yearly Creativity Fair. Teams of Quinnipiac students compete against students from other universities in intercollegiate competitions where creativity is valued. Examples of competitions include the Students in Free Enterprise and the Society of Professional Journalists competitions.

## QU Seminar Series

Our innovative QU seminar series is the signature component of a Quinnipiac undergraduate education. This series of three connected courses nurtures in students an attitude of intentional learning that they can apply to all of their classes at Quinnipiac. Through close student-faculty interaction, lively class discussion and high intellectual expectations, students develop a number of the essential learning proficiencies, such as oral and written communication, critical thinking and reasoning necessary for success in their majors and in their professional lives. The three seminars prepare students to understand their roles and responsibilities as members of the Quinnipiac community, the national community and the global community.

All first-year students, entering the fall semester, enroll in QU 101, The Individual and the Community. In this discussion seminar, students examine perennial questions of identity, diversity, individuality, and civic responsibility. QU 101 also prepares new students to recognize and meet the academic expectations of a challenging university experience.

The second-level seminar course, QU 201, explores questions of identity and community in a national context. Students select from a wide variety of sections offered each year. Recent sections include Digital Community/National Identity, The ESPNization of America, Beyond the Bionic Man and Pledging Allegiance.

The third-level seminar course, QU 301, focuses on questions of identity and community in a global context. Students select from a wide variety of sections offered each year. Recent sections include New Security Challenges, Beyond Human Rights, Journey Out of Apartheid and Meanings of Freedom. Each year several sections of QU 301 are offered that include a study abroad component.

Students are strongly encouraged to choose a

QU 201 and QU 301 section outside the area of their intended major. Each seminar course builds on the previous experiences through linked readings, research projects and outside-the-classroom experiences that strengthen the QU seminar series' ability to create an environment of learning excellence and curricular cohesion.

The new QU Seminars Center is located within the Learning Commons in Tator Hall. Students use this space to meet with their instructor and collaborate with fellow students.

## University Curriculum

The requirements of the University Curriculum assure that all students receive a broad education that exposes them to different perspectives and ways of knowing, producing lifelong learners who can, upon graduation, become leaders in their professions, in the communities where they live, and in their role as informed citizens. The University Curriculum also contributes significantly to the development of the Essential Learning Proficiencies for the 21st Century that are expected for graduates of Quinnipiac University. The University Curriculum consists of 46 credits as outlined in the following curriculum structure.

University Seminars (9 credits)<br>QU 101 The Individual in the Community<br>QU 201 Seminar on National Community<br>QU 301 Seminar on Global Community

## Freshman Composition (6 credits) <br> EN 101-102 Elements of Composition I, II

## Quantitative Literacy ( 3 credits)

A mathematics course-MA 110 (Contemporary Mathematics) or higher.

## Breadth Requirement

The well-educated Quinnipiac graduate is one who has learned to read with critical curiosity, who is able to weigh contrasting evidence and arguments, and who can seek common ground in the midst of competing and polarizing points of view. In addition to writing and speaking with passion, understanding and prescience in a survey of diverse findings across multiple discourses, the Quinnipiac graduate is familiar with the artistic and aesthetic
legacies of humankind. Thus, the successful Quinnipiac graduate is one who can revise and refine his or her judgment, considering the range of intellectual, aesthetic, ethical and civic responsibilities.

## Courses in the Sciences

## (7 credits, including one lab)

Courses offered in this category afford the student the opportunity to develop his/her knowledge in the context of a discipline that integrates the process of science, including experimental design, hypothesis testing, appropriately analyzing scientific data, and comprehending the development and significance of scientific theories.

The scientific tradition requires the completion of two courses (minimum of 7 credits). A student must complete a 4 -credit course in the natural sciences (biology, chemistry, physics, etc.) that includes a laboratory component. The other course is a 3- or 4-credit course that embodies the investigative experience.

Because of substantial duplication of course content, the following course pairs may not be taken in combination to complete the 7 credits required for the UC science requirement.
PHY 101/101L and SCI 101/101L
SCI 105/105L and SCI 161
BMS 118/118L and BMS 162
BIO 106/106L and BIO 161

## Courses in the Social Sciences ( 6 credits)

Courses that satisfy the distribution requirement for the social sciences are dedicated to exploring and critically analyzing social, economic and behavioral organization, the complexity of individual behavior and the interaction between the individual and society. Students are able to demonstrate the skills of critical inquiry appropriate to the discipline offering the course, including quantitative and qualitative methods of analysis.

## Courses in the Humanities ( $\mathbf{6}$ credits)

Courses in the humanities focus their inquiry on exploring what it means to be human through an examination of our ideas, values, ideals and experiences. They generally explore these human constructs and concerns through the intensive study of written texts and other objects that reflect human beings' efforts to create meaning in their lives. Humanities courses that satisfy the distribution requirement are dedicated to a broad exploration
and intensive examination of the human experience. These courses provide students with the analytic skills necessary for active inquiry into existing sources of knowledge while engaging them in new ideas and developments in the respective discipline. Fundamental areas of the humanities include the study of history, literature, philosophy and law.

## Courses in the Fine Arts ( 3 credits)

Courses that satisfy the distribution requirement for the fine arts examine the visual or performing arts, helping students understand the creativity of human beings through the ages. Fulfillment of the requirement enables students to appreciate the arts and have knowledge of their modes and history. Students also develop a critical, aesthetic and creative intelligence essential to the educated citizen.

## University Curriculum Electives (6 credits)

 Students take 6 credits of UC courses outside the major. Students continue to explore a variety of fields outside their major area of study by selecting additional courses in the sciences, the humanities, the social sciences and the fine arts. These courses enable students to weigh contrasting evidence and carefully examine arguments to arrive at a considered judgment. Consistent with the University's commitment to writing across the curriculum, this distribution offers students diverse opportunities to read, write and speak with informed intelligence. Above all, these courses challenge students to refine their sensibility and critical acumen to meet the challenges of a complex and ever-changing world.
## Policy for Students Who Fail QU 101

Freshmen entering the University in the fall semester who withdraw from or fail to receive a passing grade for QU 101 during that semester are given one chance to repeat the course during the first spring semester that they are enrolled at Quinnipiac. If they fail to complete the course successfully on a second attempt, they may not take QU 101 again. They may not withdraw from the course on the second attempt. The failing student receives no credit for QU 101, the failing grade ( F ) remains and he/she must substitute 3 credits from any other UC-designated course to count toward required general education credits. A variant procedure form allows the student to proceed to QU 201.

## QU 101 Policy for Transfer Students:

A student who transfers to Quinnipiac with less than sophomore standing (fewer than 27 credits) shall enroll in a special section of QU 101, to be offered during the Spring semester. Students who transfer to Quinnipiac with sophomore standing or higher must substitute any UC-designated course for QU 101, to count toward the general education credits needed to graduate. The QU 101 prerequisite is waived for the transfer student to enter a section of QU 201.

## University Honors Program

The University Honors Program has been developed to foster the needs and interests of our most academically talented and committed students. The program is founded on the University's three core values-high-quality academic programs, a student-oriented environment and a strong sense of community.

Honors students participate in small seminar courses with instructors dedicated to working cooperatively to mold a unique learning environment. This student-centered approach supports increasingly independent learning and also engages students in the larger campus as well as regional, national and world communities.

Honors students are encouraged to actively participate in and contribute to campus culture through lectures, book discussions and unique events that enhance the distinctive learning opportunities available in the University environment. Quinnipiac honors students have access to a special space on campus-the honors student lounge, which includes a small collection of books, informal seating, coffee and a kitchen that facilitates studying, conversation and honors committee meetings. In addition, honors students have the opportunity for off-campus learning experiences in nearby areas such as Boston, New Haven and New York City in addition to learning about the culture and history of Connecticut.

Honors students take a minimum of 21 credits designated at the honors level as part of their existing University Curriculum or major courses; the program does not add additional credit requirements to the students' major work, and preserves freedom to pursue electives and minors.

Typically students are considered for the University Honors Program as part of their
application for admission as freshmen. Students are notified of their selection in early February and are asked to respond by May 1 to indicate their interest in participating. Students who enter Quinnipiac but who were not offered participation in the program may apply internally based on their academic record at Quinnipiac and space availability in the program.

## Writing Across the Curriculum

Since 2000, Quinnipiac University has adopted a writing-across-the-curriculum (WAC) approach to teaching writing at the undergraduate level, an effort that has been generously supported by the Davis Educational Foundation. Writing is used extensively throughout the University Curriculum and in all the undergraduate majors to promote good critical thinking and communication skills for all students.

The WAC committee now hosts a biennial conference on Critical Thinking and Writing Across the Curriculum (begun in Fall 2006).

The University endorses the position recently taken by the National Commission of Writing For America's Families, Schools and Colleges that good writing is a "threshold skill" for employment virtually anywhere in the professions. The aim is to ensure that students are prepared to succeed in whatever profession they choose.

## Academic Integrity

In its mission statement, Quinnipiac University emphasizes its commitment to the academic community. As an academic community, our students, faculty and staff work together to acquire and extend knowledge, develop skills and competencies, and serve the greater good of our nation and local communities. Our individual and collective inquiry and pursuit of knowledge are only possible when each of us in the community is aware of and strives to maintain a code of ethical practice and integrity. All communities, though diverse in their individual members, are based on a shared set of beliefs and values that serve as their foundation. At Quinnipiac, our community has chosen integrity as one of its guiding principles.

Integrity means upholding a code or standard of values. In its most general sense, integrity also
means being complete. As an academic community, the completeness that we seek includes asking each individual to see her or his life as a whole, and to understand how the actions he or she takes affect self, others and the community. Individual actions also affect the community of higher education as a whole. In keeping with this commitment to the Quinnipiac community and the larger community of higher learning, Quinnipiac is a member of the Center for Academic Integrity (CAI), a consortium of institutions of higher education committed to the principle of integrity. Our academic integrity policy is based on the five fundamental values outlined by the CAI: honesty, trust, responsibility, fairness and respect. More information on the University's academic integrity policy is available at www.quinnipiac.edu/x1046.xml.

## Requirements for Graduation

Degrees are awarded three times a year: January, May and October.

Commencement exercises are held in the spring. Students may participate in the ceremony provided that: 1) they are within 6-8 credits (two courses) of their degree; 2) they are enrolled in summer school; and 3) they have a minimum 2.0 quality point average. Though faculty advisers assist each student in the selection of courses, the responsibility for fulfilling the requirements of the program and all Quinnipiac University program and departmental academic requirements of study rests with the individual student.

## For the Bachelor's Degree

1. The satisfactory completion of at least 120 credits, of which the final 45 must be taken at Quinnipiac University. (Certain majors in the School of Business and in the School of Health Sciences require the completion of more than 120 credits; see specific departmental requirements.)
2. Completion of the University Curriculum common to all bachelor's degree programs.
3. The satisfactory completion of the specific course standards and requirements of a student's chosen major (see curriculum descriptions).
4. A grade point average of at least 2.0 , with at least that average maintained during the final 60 hours of study, and any other GPA requirements
imposed by the school, department or program.
5. School of Business students must complete a minimum of 50 percent of the business courses required for the degree at Quinnipiac (exclusive of 6 credits of economics).
6. Up to 6 credits of workshop courses and/or physical education courses may be applied toward the degree requirement.
7. Recommendation by the faculty.

## Majors

A student's major must be approved in advance by the department chair, and the student must follow the prescribed course of study leading to the completion of this major. At least one-half of the courses in a major must be taken at Quinnipiac University. The sequence of courses in this catalog represents the most common sequence taken by students and the sequence recommended by the department or program. Course sequences are not intended to be rigid: students who wish to alter them should obtain permission from their adviser or department chair.

## Dual Majors

A student may request to major in two areas of study in the same school or college. He or she must fulfill all department requirements in both areas, complete all school requirements in the school granting the degree and be recommended by the faculties of each major department. The student receives one diploma.

## Dual Degrees

A student may earn two undergraduate degrees in two separate schools provided (a) all requirements for each degree are completed successfully, and concurrently (b) all pertinent requirements of Quinnipiac and of the departments and schools involved are completed successfully, and (c) both degrees are conferred concurrently.

## Second Degree

A second bachelor's degree may be earned, provided a minimum of 45 additional credits in
residence have been earned, and all requirements have been satisfied.

## Minors

The purpose of a minor is to provide students with the opportunity to pursue an interest in a field outside of their major. Minors generally consist of six courses within a discipline or set of related disciplines with a progression of course levels. If a minor requires additional prerequisite courses, these courses are clearly indicated in the description of the minor within the University Catalog.

A student may earn a minor in an area of study concurrently with the major degree but not subsequently. Normally credits counted toward the requirements of the major may not be used to meet the requirements of a minor. Each individual school/college may have additional policies on meeting minor requirements, which are listed in the University Catalog. Completed minors are noted on student transcripts.

The University is committed to allowing all students the opportunity to complete a minor. However, this is dependent on early declaration of a minor and flexibility, including the necessity to take additional courses beyond degree requirements. To ensure sufficient time to complete a minor, students should submit an application to declare a desired minor prior to the end of their sophomore year.

To have a minor appear on their transcript, students should apply to declare a minor prior to their senior year. Applications to declare a minor may be obtained in the dean's office of the school/college offering the minor, which will refer the student to the designated adviser for the minor. The adviser will indicate on the application for the student the number of semester hours and the specific courses required. At least one-half of the credits needed for a minor must be taken at Quinnipiac. Under special circumstances a dean, with the permission of Academic Affairs, may suspend the admission of new students into a minor for an academic year.

The following is a list of approved minors:
Accounting (p. 96)
Anthropology (p. 81)
Asian Studies (p. 86)
Biology (p. 61)
Biomedical Sciences (p. 129)
Business (p. 94)

## Chemistry (p. 64)

Computer Information Systems (p. 98)
Computer Information Systems for
Communications Students (p. 98)
Computer Science (p. 72)
Criminal Justice (p. 81)
Dispute Resolution (p. 69)
Economics (p. 99)
English (p. 67)
Entrepreneurship and Small Business Management (p. 104)

Environmental Science (p. 62)
Finance (p. 106)
Fine Arts (p. 85)
French (p. 74)
Game Design and Development (p. 85)
Gerontology (p. 81)
History (p. 68)
Interactive Digital Design (p. 85)
International Business (p. 108)
International Studies (p. 86)
Journalism (p. 119)
Management (p. 109)
Marketing (p. 110)
Mathematics (p. 72)
Media Studies (p. 120)
Microbiology/Molecular Biology (p. 133)
Middle Eastern Studies (p. 87)
Music (p. 85)
Philosophy (p. 76)
Political Science (p. 76)
Psychology (p. 79)
Public Relations (p. 120)
Science and Values (p. 88)
Scriptwriting (p. 118)
Sociology (p. 81)
Spanish (p. 74)
Sports Studies (p. 88)
Studies in the Law (p. 70)
Theater (p. 86)
Theater Design and Production (p. 86)
Women's Studies (p. 89)

## Service Learning Courses

Course offerings designated SL in the catalog indicate classes or sections of classes that integrate meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities.

The SL designation helps faculty advisers and students identify service learning courses to plan and prepare for registration. Quinnipiac University is a member of Connecticut Campus Compact. Campus Compact is a national coalition of college and university presidents dedicated to promoting community service, civic engagement and servicelearning in higher education.

Service learning is not volunteerism; nor is it an internship. Service learning is a curriculum-based initiative bringing together faculty, students and community organizations. Service Learning courses incorporate the following basic principles:

- Engagement is fostered through service projects with a community partner.
- Reflection on the experience of working on the community project is both an academic and personal process.
- Reciprocity is promoted by addressing real community needs.
- Dissemination means that previous courses serve as models of best practices for new courses.
The purpose is to assist community organizations by providing situation-specific student resources in activities consistent with the goals of a specific course. Through Service Learning, community organizations are more able to meet their objectives, faculty are more able to demonstrate key course concepts, and students are more able to relate course theory with actual situations and practices. For details, see the website (www.quinnipiac.edu/x179.xml).


## Service Learning Certificate

Interested students who meet the requirements are eligible to receive a certificate from the Committee for Service and Service Learning. This certificate reflects the commitment the student has made to experiential and service learning techniques and opportunities in designated service learning courses. To earn a Service Learning Certificate, students must successfully complete (with a grade of C or better) three or more service learning (SL) designated courses at Quinnipiac. An application form, which contains a list of eligible service learning designated courses and instructions can be downloaded from the Service Learning web page. The Course Schedule and Registration Bulletin also lists the service learning courses that are offered in each semester. The SL designation helps
faculty advisers and students identify service learning courses to plan and prepare for registration. Each student who applies and completes the requirements of a Service Learning Certificate receives their certificate at an end-of-the-year celebration, and is invited to service learning events during the school year. For details, see the website (www.quinnipiac.edu/x179.xml).

## Grading System

Achievement in a particular course is indicated by a letter grade that is translated into grade points for the student's record. Final grades are issued by the registrar at the close of each semester. Midsemester standings are issued to first-year students in 100-level courses, apprising them of their progress.

Grade points earned in a course are determined by multiplying the point value of the letter grade (shown in the table below) by the number of credits of the course. A cumulative average is obtained by dividing the total number of grade points by the total number of credits taken at Quinnipiac.

## Scale of Grades

| Letter Grade | Numerical Range | Grade Pt. Value |
| :---: | :---: | :---: |
| A | 93-100 | 4.00 |
| A - | 90-92 | 3.67 |
| B + | 87-89 | 3.33 |
| B | 83-86 | 3.00 |
| B - | 80-82 | 2.67 |
| C + | 77-79 | 2.33 |
| C | 73-76 | 2.00 |
| C- | 70-72 | 1.67 |
| D | 60-69 | 1.00 |
| F | 0-59 | 0.00 |
| ${ }^{*}$ I (incomplete) P (pass) **W (withdrawal) S (satisfactory) Z (audit) U (unsatisfactory) |  |  |
| *Incomplete means the student has not completed all work required in a course. A period of time is allotted to make up the work. An incomplete grade automatically becomes a failing grade if it is not removed within that period. The period normally cannot extend more than 30 days after the start of the next full semester. In exceptional cases, an extension may be made with the written approval of the department chair (up to one year) or the appropriate dean (any longer period). |  |  |
| **A student may withdraw from a course offered in a traditional semester ( 15 week) format up to the end of the 10th week of classes. For courses offered during the summer or in accelerated or other non-traditional formats, the withdrawal |  |  |

period extends up to the completion of 60 percent of the scheduled class sessions. Prior to the start of each semester the specific withdrawal deadlines for all classes are published by the Office of the Registrar.
Withdrawals must be recorded on an official form available in the registrar's office.
P indicates "passed with credit" when no letter grade is given.
Z indicates the course was audited.
S indicates "passed with no credit."
U indicates "unsatisfactory work."

## Academic Good Standing Policy

## Math and English Requirements

Full-time students are expected to have completed EN 101, EN 102 and MA 110 (or their equivalent) by the end of three semesters. Part-time students are expected to have met these requirements by the time they have completed 30 credits. Students may not withdraw from EN 101 or EN 101 Intensive. The first time a student fails to complete EN 101 or EN 101 Intensive successfully, a grade of "U" is issued. Each additional unsuccessful attempt at EN 101 or EN 101 Intensive results in a grade of "F."

## Credit and GPA Requirements

To be in academic good standing at Quinnipiac, undergraduate students must meet both minimum grade point average and completed credit requirements. A student fails to meet academic good standing requirements if his or her: a) semester GPA falls below 2.0 in any semester or, b) cumulative GPA is below 2.0. Students admitted before the 2011-12 academic year will be held to the standards in place during their admission. In addition to the GPA requirements, all students must complete course work over a period no longer than 150 percent of their program length to maintain the satisfactory academic progress standards of the University. For example, a full-time student enrolled in a four-year degree program must successfully complete an average of 10 credits per semester registered. A part-time student must complete an average of 6 credits per semester registered. Some individual degree programs have higher GPA and credit requirements for students to maintain program eligibility. Consequently, students should consult the program description in this catalog for the requirements of their individual program. Students should also know that failure to meet the academic good standing requirements may result in the loss of financial aid.

## Sanctions

Any student who fails to achieve any of the requirements above is subject to one of the following sanctions:

## Probation

Probation serves as an official warning of deficiency that requires students to promptly address their deficiency(s). Prior to the start of each semester, academic advisers are provided with a list of their advisees who are on academic probation along with a Guide on the special advising needs of students on probation. Before the end of the first week of classes, students on probation must submit an electronic copy of their Improvement Plan to their academic adviser and the Learning Center. In the Improvement Plan, they should reflect on their past semester, and indicate how they will improve their academic performance to remedy their academic deficiencies. Probationary students must meet with their adviser within the first two weeks of the next semester to have the adviser approve or amend the plan. Approved plans are forwarded to both their school/college dean's office and the Learning Center. Probationary students must meet personally with their adviser a second time during preregistration to discuss their progress in meeting the goals of their Improvement Plan and their course selection for the next semester. Additionally, probationary students must email their adviser with a progress update every two weeks during their semester on probation.

The Learning Center has a variety of programs to support students on probation. Students on probation may register for courses in the usual fashion. However, students on probation who have completed 30 or fewer credits must attend and successfully complete an Advanced Learning Seminar. This seminar provides students support and strategies to assist them in correcting their deficiencies. Normally, students are not permitted to appeal probationary status. However, students who failed to achieve the completed credits requirement for documented medical reasons may appeal a probation decision.

## Suspension

Students who have serious or repeated deficiencies are subject to suspension. Suspended students must leave Quinnipiac for a period of one semester. Suspended students are encouraged to use the period of
suspension to improve their academic skills. However, credit will not be given for summer courses or courses taken elsewhere during the suspension period. Suspended students are readmitted to Quinnipiac after the completion of the suspension period.

## Dismissal

Students with serious or repeated academic deficiencies are subject to dismissal from Quinnipiac. After a period of at least one year, dismissed students who have demonstrated academic achievement elsewhere may file a new application for admission to Quinnipiac.

## Procedures

Decisions regarding probation, suspension and dismissal are made by the Academic Deficiency Review Committee (Deficiency Committee). The Deficiency Committee is composed of four faculty members (appointed by the deans of the academic schools) and the registrar, who serves on an exofficio basis. Normally students are put on probation after their first deficient semester. Individual students may be continued on probation for subsequent semesters if they make progress in addressing their deficiency(ies). However, students who are deficient after a total of three semesters on probation, or two semesters after the freshman year, are suspended or dismissed. Any student who has a GPA below 1.2 after two semesters is dismissed.

Suspended and dismissed students may appeal their sanction to the Academic Appeals Committee, consisting of a representative of Academic Affairs, school deans and two students appointed by the student government president. The Appeals Committee may change a suspension or a dismissal to a lesser sanction. All notifications of decisions and meeting times of the Deficiency and Appeals committees are sent to the permanent address of affected students by Federal Express or first class mail (probation notices only). It is the responsibility of students to be sure they can be contacted and, if necessary, respond promptly to committee notices.

## Course and Credit Requirements

Each course is measured in credits. Each credit normally requires satisfactory completion of a 50minute class period, or its equivalent, per week for a
semester. The usual load is five courses. A student with a superior academic record may secure permission to take more than the normal course load. Conversely, a student who enters with deficiencies may be allowed to take only three or four courses.

Regular class attendance is expected. A student whose attendance is unsatisfactory may be forced to withdraw from a course at the discretion of the instructor and consistent with Quinnipiac's withdrawal policy.

So far as is practicable, final examinations are regarded as part of the regular work for undergraduate courses.

In courses for which a final examination would serve no useful purpose, a term essay or personal conference, problem-solving exercise, or other assignment may be substituted; work on the substitute exercise may take place during the final examination period.

Faculty members may exempt from the final examination students whose work is of high quality. Conditions governing exemptions are determined by the faculty of the school concerned.

## Repeat of Courses with Grade of F, D or C-

A student who fails a required course must repeat that course. When the student earns a passing grade for the failed course, that grade and those credits are calculated in the student's cumulative average. The student's transcript will continue to display the failed course as part of the student's complete academic record. A student who fails an elective course may repeat that course to earn a passing grade. The passing grade and credits become part of the student's cumulative GPA; the record of the failing grade remains on the transcript.

Though the D grade normally is a passing grade, it is the prerogative of each department to set higher grade requirements in certain major courses. When such departmental requirements exist, students are so informed by their respective departments.

Courses with C - or D grades may be repeated only if the course is a foundation for further study or meets a specific graduation requirement. If a C or D grade is repeated, no credits are added, but the most recent grade in the course applies.

## Procedure to Appeal a Final Grade

Faculty members are the most appropriate judges of how students perform academically. Therefore, this appeal process applies only in cases in which a student believes her/his final grade was determined in an arbitrary, capricious or prejudicial manner. In such a situation, the student must first try to resolve the matter with the faculty member assigning the grade. If the matter cannot be resolved, the student should contact the chairperson of the department offering the course. If, after consulting with the student and faculty member, the chairperson is unable to mediate a mutually agreeable resolution, the student then contacts the associate dean of the division/school/ college offering the course. If after consulting with the student, faculty member and chairperson, the associate dean is unable to mediate a mutually agreeable resolution, the student can request the formation of an appeal committee.

The request for an appeal committee must be in writing and include a description of why the student believes her/his final grade was determined in an arbitrary, capricious or prejudicial manner, and all relevant evidence (e.g., course syllabus, exams, projects, etc.). The associate dean will appoint a three-member faculty committee composed of two from within the department offering the course and a full-time faculty member of the student's choosing. In the absence of a student preference, the associate dean will appoint the third faculty member from another department within the college or school. If the associate dean is unable to appoint two faculty members from within the department, he/she will appoint two or more faculty members from outside the department, with the student having the option of choosing one full-time faculty member. The faculty member assigning the grade and the chairperson may not participate in this decision process.

After consulting with the student and faculty member, and reviewing the evidence, the appeal committee will forward to the associate dean a written final determination that either allows the grade to stand or requires the faculty member to recalculate the grade, with chairperson oversight. After the faculty member submits the recalculated grade, the chairperson will document the nature and date of any changes and forward the documentation
to the associate dean. The associate dean will notify the faculty member, department chair and student of the final resolution.

The student must submit her/his written request for an appeal committee to the associate dean within 45 calendar days from the start of the semester following the semester for which the grade was given. It is expected that within the 45day period, the student, faculty member, department chairperson and associate dean will work cooperatively to resolve the matter. If the chairperson is the faculty member who assigned the grade, the student will contact the associate dean after failing to resolve the matter with the faculty member. If the faculty member who assigned the final grade is unavailable during the semester following the semester for which the grade was assigned, the above process begins with the chairperson. The appeal process will be completed by the end of the semester within which it is initiated. Only final grades may be appealed.

## Permission to Study at Another Institution

Quinnipiac University is committed to having its students take courses that best fit their required curricula at the appropriate academic level. Once undergraduate students have matriculated at Quinnipiac, they normally are not allowed to take courses for credit elsewhere. If there is a compelling reason, the University will accept up to two courses from other institutions for transfer credit, assuming grades of "C" or better. To receive credit, the course must be preapproved by the appropriate dean based on an official course description provided by the student. Ordinarily, permission to take a summer or intersession course elsewhere is not given if a) the course if offered during the same period by QU Online, or b) if the course is offered during the same period on the Quinnipiac campus and the student is residing in the State of Connecticut. If either of these two requirements is inappropriate for an individual student, he/she may petition for an exception from the dean through the University's Variant Procedure process. Once a student has completed (or transferred) a total of 48 credits, he/she will not be permitted to take a course at a junior or community college offering two-year terminal degrees. Students must take
their final 45 credits at Quinnipiac. Students who study abroad during the summer or winter intercession are exempt from the two-course limit.

Quinnipiac University has different policies that apply to courses taken elsewhere through its approved Study Abroad and Washington Semester programs (see pp. 41-43, 47).

## Leaves of Absence

Leaves of absence may be arranged for one or two semesters through the registrar, subject to departmental and school approval. At the conclusion of the leave of absence, the student receives automatic readmission to the University. The granting of a leave of absence guarantees readmission to the major in which the student is enrolled when applying for a leave and permits the student to graduate by complying with the degree program requirements in effect when the leave is taken, provided that the courses are still offered. If requirements for graduation are changed after a student is first admitted to Quinnipiac, the student can choose to follow either the former or the new requirements. During the leave of absence, Quinnipiac retains the student's deposit until completion or withdrawal.

If a student takes a leave of absence and later is suspended, dismissed, placed on warning for unsatisfactory academic performance (including academic integrity sanctions), or suspended or expelled as the result of a judicial decision, the sanctions take precedence over the leave of absence and stand as a matter of record. Any academic warning becomes operative at the time of return to the University. A mandatory medical leave of absence takes precedence over a voluntary leave of absence and the student must comply with the terms of the medical leave.

Leaves of absence are not granted for the purpose of allowing a student to study at another university. In general, courses taken at another institution while a student is on a leave of absence will not be transferred in for credit at Quinnipiac.

Students who do not return after the specified leave of absence period will be administratively withdrawn and will be required to reapply for admission in order to return to the University. In such instances there is no guarantee of readmission.

## Military Leaves

Students in the military reserves who are enrolled when they are called to active duty, are offered the following options:

1. Withdrawing from courses with a full tuition refund or tuition credit, in accordance with institutional and federal government guidelines.
2. If a student has completed at least 50 percent of the course work and upon recommendation of his/her dean, the student may elect to take incompletes and make special arrangement for course completion with individual instructors.
Students needing to take a military leave should contact the Office of Academic Affairs.

Students are eligible to return within one year following active duty. However, the degree requirements may have changed, and they may be required to comply with degree program requirements in effect at the time of their return to the University.

## Withdrawal from the University

Students considering withdrawal from the University should meet with their academic adviser or department chair to explore the available alternatives. If withdrawal is a student's final decision, he/she should meet with the dean of his or her school.

Honorable release is granted when all financial obligations to Quinnipiac University have been met. The refund policy is available in the bursar's office.

A student receiving aid for education for the Veterans Administration must consult with the registrar and comply with Veterans Administration regulations. A student holding a Stafford Loan or Nursing Student Loan must have an interview in the financial aid office to ensure a clear understanding of repayment obligations. For details, see www.quinnipiac.edu/services/bursar/asp.

If a student plans to withdraw and later is suspended, dismissed, placed on warning for unsatisfactory academic performance (including academic integrity sanctions), or suspended or expelled as the result of a judicial decision, the sanctions take precedence over the withdrawal and stand as a matter of record. Any academic warning becomes operative in the event that the student is readmitted to the University.

## Administrative Withdrawal

Students are administratively withdrawn by the University if they have not registered for classes by the end of the drop/add period of any semester, if they have not returned to the University when the approved period of leave of absence has expired, or if they have not returned at the time specified after academic or disciplinary suspension and the period of suspension has not been extended.

Students who have been administratively withdrawn from the University must reapply for readmission. Readmission to the University is not guaranteed. A student who is granted readmission to the University may not be guaranteed readmission to the major in which he or she was enrolled at the time of administrative withdrawal. All students who are readmitted after an administrative withdrawal must comply with degree program requirements in effect at the time of readmission.

## Readmission

Students who are not on an official leave of absence and who wish to return to Quinnipiac University must apply for readmission through the admissions office. Any student who has been away from the University for two full semesters must reapply for admission. Official transcripts of any colleges attended while the student has been away from Quinnipiac must be provided. The admissions office, the academic affairs office and the dean of student's office will determine the student's eligibility for readmission.

A student who is granted readmission to the University may not be guaranteed readmission to the major in which he or she was enrolled at the time of administrative withdrawal. All students who are readmitted after an administrative withdrawal must comply with degree program requirements in effect at the time of readmission.

## Medical Leaves

## Medical Leave of Absence

Students who wish to leave the University during an academic term because of physical or psychiatric conditions that necessitate their absence may
request a medical leave of absence. Documentation of the serious nature of the medical condition must be provided to the associate dean of student affairs who will review that documentation with the University medical director. A leave of absence may be arranged for one or two semesters. Under special circumstances, the medical leave of absence may be extended. The student may return to classes when medical clearance, provided by a private physician, is reviewed by the University medical director and accepted by the associate dean of student affairs.

## Mandatory Medical Leave of Absence

The University reserves the right to place a student on a mandatory medical leave of absence from the Quinnipiac community for physical or psychiatric reasons.

In the case of a physical problem, the associate dean of student affairs, in consultation with the University medical director, determines the appropriateness of a mandatory medical leave of absence. Parents, legal guardians or the emergency contact of the student are notified and arrangements are made immediately to remove the student from campus. Before returning to Quinnipiac from a mandatory medical leave of absence, the student is expected to release all relevant medical information to the University medical director. After reviewing the information, the University medical director and the associate dean of student affairs determine whether the student may return to the University or whether continuation of the mandatory medical leave of absence is warranted.

In the case of a psychiatric problem, the associate dean of student affairs, in consultation with the University psychiatrist, determines the appropriateness of a mandatory medical leave of absence when the student is perceived to be a threat to self or others; when the student is deemed to be unable to withstand the rigors of the college experience; or when the student's behavior is disruptive to the educational mission of the University. Parents, legal guardians or the emergency contact of the student are notified and arrangements are made immediately to remove the student from campus. The associate dean of student affairs makes this decision on a temporary basis pending results of an evaluation conducted by the University psychiatrist. After reviewing the evaluation results, the
associate dean of student affairs, in consultation with the University psychiatrist, determines whether the student may return to the University or whether continuation of mandatory medical leave of absence is warranted. Before returning to Quinnipiac from a psychiatric mandatory medical leave of absence, the student must undergo a psychiatric evaluation at his or her own expense with the University psychiatrist. The student is expected to release all relevant medical information to the evaluating physician. The results of this evaluation are submitted to the associate dean of student affairs, who, in consultation with the University psychiatrist, determines whether the student may return to the University.

Students may appeal this decision to return following a mandatory medical leave of absence for physical or psychological reasons to the vice president and dean of student affairs. All information submitted becomes part of the student's health record and remains confidential.

## Withdrawal from a Course

A student may withdraw from a course offered in a traditional semester (15-week) format up to the end of the 10 th week of classes. For courses offered during the summer or in accelerated or other non-traditional formats, the withdrawal period extends up to the completion of 60 percent of the scheduled class sessions.

## Student Records Policy

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. These rights include: 1. The right to inspect and review the student's educational records within 45 days of the day Quinnipiac University receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. A Quinnipiac official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Quinnipiac official to whom the request was submitted, that official shall advise the student of the correct official to
whom the request should be addressed.
2. The right to request the amendment of the student's education records that he or she believes are inaccurate, misleading or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the University to amend a record should write to the Quinnipiac official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If Quinnipiac decides not to amend the record as requested by the student, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment.
Additional information regarding the hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
3. The right to provide written consent before Quinnipiac discloses personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent.

One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by Quinnipiac University in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom Quinnipiac has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility. Upon request, Quinnipiac also discloses educational records without consent to officials of another school in which a student seeks or intends to enroll.

## Public Notice Designating Directory Information

 Quinnipiac University designates the following information as public or "Directory Information" under FERPA, that is, information that can be made available to the general public by Quinnipiac without the student's prior consent: NameAddress
Telephone number
Email address
Date and place of birth
Secondary school
Hometown or city at the time
School or college
Major field of study
Degree sought
Weight and height of athletic team members
Expected date of completion of degree
requirements and graduation
Degrees and awards received
Dates of attendance
Full- or part-time enrollment status
Previous educational agency application for admission filed or institution attended
Participation in officially recognized activities and sports
Name and address of parent or guardian
Photo images from ID cards
A student may refuse to permit the designation as "Directory Information" of any or all of the personally identifiable information listed above, except to school officials with legitimate educational interests and others as indicated. To do so, a student must make the request in writing to the Office of the Registrar by 5 p.m. on Friday of the first week of classes of the semester. Once filed, this request becomes a permanent part of the student's record until the student instructs Quinnipiac University, in writing, to have the request removed.
4. The right to file a complaint with the U.S.

Department of Education concerning alleged failures by Quinnipiac University to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:
Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5920

## Academic Outcomes Assessment

Academic outcomes assessment at Quinnipiac University is based on objectives identified by faculty and administrators for specific academic and support programs. The process employs a variety of measurements to discover, as accurately as possi-
ble, whether the programs are achieving the student learning outcomes in areas such as general education and major programs of study.

The purpose of academic outcomes assessment is to produce feedback to the department, school/ college or administrative unit on the performance of the curriculum, learning process and/or services, thereby allowing each unit to improve program offerings. This type of assessment is not for the purpose of evaluating performance of an individual student, faculty member or staff member.

Measurements may be drawn from surveys, course evaluations, placement tests and a variety of other standardized or locally developed tests. For example, required course assignments and examinations may be used first as a basis for course placement or for assigning grades to a student, and then later used again in an outcomes assessment for an academic or support program. In these cases, the outcomes assessment is conducted as a process separate from and without influence on the course placement or grading process for individual students.

Whenever academic performances are used in outcomes assessment, confidentiality of individual student identities is strictly maintained. Outcomes assessment results for academic and support programs do not disclose analyses at the level of the individual student without written permission from the student.

## Academic Honors

## Dean's List

Students who excel in scholarship by earning a grade point average of at least 3.5 with no grade lower than C are recognized by being placed on the dean's list. Full-time students must complete at least 14 credits in a semester, with at least 12 credits that have been graded on a letter grade basis (A through C) to be eligible. Part-time students must complete at least 6 credits during a semester.

## Degrees with Honors

Students who have demonstrated superior scholarship and who have attended Quinnipiac for at least 60 credits immediately prior to graduation are eligible to receive degrees with honors. Designation is based on grade point averages as follows:
Summa Cum Laude
3.90-4.00
Magna Cum Laude
3.70-3.89
Cum Laude
3.50-3.69

## Academic Awards and Honor Societies

## Advertising Department Student Achievement Award

This award is presented to a graduating student exhibiting outstanding scholarship, independent creativity and extracurricular activities directly related to advertising.

## Alumni Association Academic Achievement Awards

At graduation, the Alumni Association presents an award to the honors student from each of the undergraduate schools who has attained the highest scholastic standing and who has completed 90 credits at QU. These awards are made possible by the Alumni Association National Board of Governors.

## The Alumni Award for Holistic Nursing Practice

This award recognizes clinical excellence and exceptional potential in the discipline of nursing. It is presented to the senior nursing student who has demonstrated a strong commitment to the unity of body, mind, emotion and spirit in the delivery of health care. The award is supported by The Quinnipiac University Nursing Alumni Fund, which was established by the Class of 1998.

## The Alumni Chair Award

A chair is presented to the graduating senior who has done the most to foster student alumni relations at Quinnipiac. This award is made possible by the Alumni Association Board of Governors.

## Alpha Delta Sigma Society

The Alpha Delta Sigma Society is a national honor society recognizing scholastic achievement in advertising studies. It is sponsored by the American Advertising Federation to encourage scholarship among students of advertising.

## Alpha Kappa Delta

Alpha Kappa Delta is an international sociology honor society designed to stimulate scholarship and promote the scientific study of society.

## Alpha Lambda Beta

Alpha Lambda Beta is the University's chapter of Phi Alpha Theta, the national history honor society. Alpha Lambda Beta seeks to bring students, teachers and writers of history together for intellectual and social exchanges that promote historical understanding, research and publication.

## Alpha Mu Alpha

Sponsored by the American Marketing Association, this National Marketing Honorary Award is given to graduating seniors who are in the top 10 percent of the seniors in marketing.

## Alpha Psi Omega

Alpha Psi Omega, the largest national honor society in America, recognizes excellence in all areas of theater study and production. Membership is based on cumulative grade point average and achievement during the University main stage theater production season in the areas of performance, technical production and theater administration.

## Alpha Sigma Lambda

Alpha Sigma Lambda was the first and remains the only chapter-based honor society established to honor both full-time and part-time adult students who are pursuing their undergraduate degrees. Founded in 1946, the Alpha Sigma Lambda national honor society provides recognition to highly motivated adult students who are continuing their education while managing the responsibilities of work and family.

## Arias-Schweitzer Internship

The Arias-Schweitzer internship provides a graduating senior with the opportunity to work with the Arias Foundation for Peace and Human Progress in Costa Rica. The 12-month paid internship is made possible through the efforts of the Albert Schweitzer Institute. The foundation focuses on issues of demilitarization and human security, the promotion of grassroots support for democracy in Latin America, and issues of gender, development and human rights.

## Christopher Becker Memorial Prize in History

This award is given to the history major with the highest cumulative grade point average.

## Mitchell Berkun Prize in Psychology

Each year, the student majoring in psychology who has completed the Research Methods sequence (PS 206, $307,308)$ with the highest grades receives this award. It honors the individual who founded the psychology department founder.

## Beta Beta Beta

The biological honor society Beta Beta Beta annually awards an official society key and scroll to the graduating senior member of the Beta Beta Beta majoring in the biological sciences who has attained the highest academic standing.

## Beta Gamma Sigma

Beta Gamma Sigma is the National Business Honor Society. Only Schools of Business accredited by AACSB International-The Association to Advance Collegiate Schools of Business, may have a chapter of this society. Membership is by invitation only, and invitees must be a junior or senior in the top 10 percent of their class.

## Biomedical Sciences Student Achievement Award

Each year, the Department of Biomedical Sciences presents an award to a biomedical sciences major who has demonstrated exceptional academic achievement, and who has contributed significantly to the community.

## The BRAMS Scholar Award

The BRAMS Scholar Award is presented annually to a graduating Quinnipiac senior who is part of the Quinnipiac University/Betsy Ross Arts Magnet School Partnership. Award recipients are selected based on academic achievement.

## Diagnostic Imaging Academic Achievement Award

This award is presented annually to a graduating senior majoring in diagnostic imaging who has exhibited outstanding achievement in the academic and clinical settings.

## Economics Department Student Achievement Award

This award is given each year to a senior majoring in economics who has shown outstanding academic achievement and who has contributed significantly to the department.

## Entrepreneurship Student Achievement Award

This award is presented to a graduate of the entrepreneurship program who has contributed significantly to the advancement of Quinnipiac, as well as to the program.

## James Fickes Mathematics Award

This award is given to the senior mathematics major who has shown the greatest achievement and future promise as a mathematician, and who has demonstrated leadership both in and outside the classroom.

## Barry Fritz Award in Psychology

This prize is given each spring to a senior in psychology who has completed an independent study project that is both creative and relevant. These two qualities characterized the research of Professor Barry Fritz, in whose honor the award was established. To be considered, the project must be completed by the fall of senior year, but also could be completed in previous years.

## Department of Sociology Joan Phillips Gordon Prize

This award, in honor of Joan Phillips Gordon, former chair of the department, is presented annually to a senior in sociology, social services, criminal justice or gerontology who demonstrates outstanding academic and leadership qualities.

## Health \& Science Studies Student Achievement Award

This award is given each year to a senior majoring in health and science studies who has shown exceptional academic achievement and who has contributed significantly to research or community efforts at the University.

## Highest GPA in Communications

This award is presented to a graduating senior from the School of Communications with the highest overall grade point average, who has shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## The Computer Information Systems Student Senior Achievement Award

This award recognizes a senior CIS major who had demonstrated scholastic achievement and shown leadership on campus.

## International Business Award

This award is presented to a student who has demonstrated academic excellence and professional qualities in international business.

## Albert H. Jente Memorial Prize

A silver key in memory of Albert H. Jente, former treasurer of Quinnipiac, is awarded annually to a member of the sophomore class who has done the most for his or her class through loyalty, cooperation and teamwork.

## Olive Kennedy Memorial Scholarship

The award, made to part-time undergraduate women, was established by Olive Kennedy's family and friends in recognition of the valuable assistance she lent as a counselor to adult students.

## Lambda Epsilon Chi

Lambda Epsilon Chi is the national honor society for legal studies/paralegal students and recognizes students who have demonstrated superior academic performance in a legal studies program.

## Lambda Pi Eta

Lambda Pi Eta is the communication studies honor society. Quinnipiac's Tau Delta chapter seeks to recognize, foster and reward outstanding scholastic achievement, promote and encourage professional development, promote closer relationships between faculty and students and explore options for graduate education in communication studies.

## Legal Studies Book Award

This award is given annually to the graduating senior legal studies student with the highest overall cumulative grade point average who has demonstrated exceptional ability in the discipline.

## Robert G. Leonard Award

The Quinnipiac Sigma Xi Chapter sponsors this annual award for excellence in research by outstanding undergraduate and graduate students in science, mathematics and computers.

## Management Department Award

This award is presented to a senior, majoring or minoring in management, for outstanding performance in organizing and facilitating the development of work groups and projects related to personal and career development.

## Ronald Marangell Memorial Prize for Excellence in Accounting

A plaque and an award are given annually to the outstanding accounting student in memory of Ronald Marangell, a former Quinnipiac accounting student.

## Marketing Department Student Achievement Award

This award is presented to a student possessing expertise in marketing who has made contributions to the field and to the marketing department.

## Modern Languages Department Spanish Writing Award

The Department of Modern Languages in the College of Arts and Sciences sponsors an annual Spanish writing contest. Eligible students write an essay in Spanish, which is judged by departmental professors. The winning student is honored at the College of Arts and Sciences award dinner and receives a commendation and a monetary prize.

## Occupational Therapy Leadership

This award is presented from the faculty to a student who has shown outstanding leadership in academic work, laboratory performance and initiatives within the department.

## Occupational Therapy Outstanding Community Contribution

This award recognizes distinguished service in the field of occupational therapy within the Quinnipiac community and the greater community of occupational therapy within the state or nation.

## Ryan J. O'Neil Entry-Level Master's Physician Assistant Award

This award is presented to the senior ELMPA student who most exemplifies excellent leadership, academic excellence, a cooperative attitude and the strength of character of a future health care professional. The award is in memory of Ryan J. O'Neil, a former ELMPA student.

## Outstanding Community Service AwardFreshman

This award is given to a student in the freshman class who has a C+ average or better, and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Community Service AwardSophomore

This award is given to a student in the sophomore class who has a C+ average or better, and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Community Service AwardJunior

This award is given to a junior who has a C+ average or better and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Freshman Award

This award is given to a student who has a 2.75 GPA or better, is involved in one activity and has demonstrated interest in others.

## Outstanding Sophomore Award

This award is given to a student with a 3.0 GPA or better who is involved in activities, with a clearly demonstrated leadership role in at least one activity.

## Outstanding Junior Award

This award is given to a student who has a 3.0 GPA or better and is involved in a variety of activities, with a clearly demonstrated leadership role in one activity and whose strength of character has affected the Quinnipiac community.

## Outstanding Senior Award

This award recognizes a senior who has a 3.0 GPA or better for service, dedication and contribution to Quinnipiac throughout his or her four years.

Outstanding Student Affairs Leadership Award This award is given to students who have demonstrated outstanding leadership qualities, a cooperative attitude and a commitment to improving the quality of life at Quinnipiac.

## The R. Gordon Pauluccy Graduation Prize in Psychology

The Pauluccy family established this endowed fund for an award to be made annually to the senior majoring in psychology who has the highest overall grade point average.

## Outstanding Achievement in Film, Video and Interactive Media

This award recognizes distinguished creative achievement in film, video and interactive media.

## Outstanding Achievement in Journalism

This award is presented to a graduating senior from the journalism program who has shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Outstanding Achievement in Media Studies

This award is presented to a graduating senior from the media studies program who has shown academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Outstanding Achievement in Public Relations

 This award is presented to a graduating senior from the public relations program who has shown academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.
## H. Pearce Family Community Leadership Award

This award is given to a senior undergraduate who has best exemplified the spirit of volunteer community service during his or her years at Quinnipiac.

## Phi Sigma Biological Honors Society

Phi Sigma is an organization devoted to the promotion of research and academic excellence in the biological sciences. Students are invited to become members if they are at least juniors or graduate students, have an overall GPA of 3.0, and are participating in research at Quinnipiac in any area related to the biological sciences.

## Phi Theta Epsilon

Phi Theta Epsilon is a national honor society that recognizes outstanding scholarship and service to the occupational therapy profession.

## Pi Sigma Alpha

Pi Sigma Alpha, the National Political Science Honor Society, is the only honor society for college students of political science and government in the U.S. Its purpose is to stimulate scholarship and intelligent interest in political science, and to honor political science majors who display leadership and academic achievement.

## Political Science Best Senior Thesis Award

The political science faculty has established this award to recognize graduating senior student(s) in political science who have submitted outstanding, as well as original, theses.

## Political Science Best Research Project Award

 The political science faculty has established this award to recognize graduating senior student(s) in political science who have completed an outstanding, as well as original, research project.Harold Potts Memorial Physical Therapy Award This award is given in memory of Harold Potts, former chairman, professor and founder of the physical therapy program at Quinnipiac. The award is presented from the faculty to a fourth-year physical therapy student who has demonstrated academic and leadership excellence, as well as exemplary service to the program and physical therapy profession.

## President's Scholarship Award

This award by the president of Quinnipiac goes to the student who has attained the highest scholastic standing in his or her graduating class and who has completed at least 90 credits at Quinnipiac.

## Psi Chi

Psi Chi is the national psychology honor society, founded for the purposes of encouraging, stimulating and maintaining excellence in scholarship and advancing the science of psychology.

## The Rachel Ranis Prize in Social Justice

This award is presented to a senior in sociology, social services, criminal justice or gerontology who demonstrates a passion for social justice.

## Alice B. Remail Memorial Award

The English department established this award in memory of one of its distinguished members. The award is made to the graduating senior with the highest academic record in English.

## Edward J. Scannell Prize

The Scannell family established this endowed prize fund in memory of former trustee, Edward J. Scannell. Two
prizes are awarded to graduating seniors enrolled in the School of Business who are elected to "Who's Who at American Universities and Colleges."

## School of Communications Overall Achievement Award

This award is presented to graduating senior(s) from the communications program who have shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Aurea C. Schoonmaker Spanish Award

In honor of Professor Aurea C. Schoonmaker's 43 years of exemplary teaching at Quinnipiac, this prize is awarded to the senior Spanish major with the highest overall cumulative grade point average.

## The Senior Service Prize in Criminal Justice

This award is presented to the senior criminal justice major who exhibits extraordinary service to the program, campus life and community.

## Sigma Delta Pi

Sigma Delta Pi, national honor society in Spanish, honors students who attain excellence in the study of Spanish language and the literatures and cultures of Spanish speaking people. To be considered for membership in Sigma Delta Pi, a student must: be a junior, have a GPA of 3.2 overall, maintain a GPA of 3.2 in all Spanish courses, and have completed 18 credits in Spanish at the 200 level or above, including two semesters of advanced Spanish language courses, as well as an advanced course in Hispanic literature or culture.

## Sigma Phi Omega

Sigma Phi Omega, the national academic honor society in gerontology, recognizes the excellence of those who study gerontology/aging. The society seeks to promote scholarship, professionalism, friendship and services to older persons, and to recognize exemplary achievement in gerontology/aging studies and related fields.

## Sigma Tau Delta

Sigma Tau Delta's central purpose is to confer distinction upon students of the English language and literature in undergraduate, graduate and professional studies. Our members have the opportunity to be recognized for their outstanding achievements, enrich their education, and advance their careers.

## Sigma Theta Tau International Honor Society of Nursing

Tau Rho is the Quinnipiac University chapter of Sigma Theta Tau International Honor Society of Nursing. This
global community of nurses seeks to improve the health of the world's people by increasing the scientific basis of nursing practice. The organization provides leadership and scholarship in practice, education and research. Membership is by invitation to undergraduate and graduate nursing students who demonstrate academic excellence, and to nurse leaders in the community who exhibit exceptional achievement in nursing.

## Alfred P. Stiernotte Memorial Prize

An annual award is made to the student who has earned distinction in the study of philosophy.

## Student Involvement Award

An award to an outstanding student is presented by Student Government.

## Orville J. Sweeting Memorial Chemistry Award

 In memory of Orville J. Sweeting, former professor of chemistry and Quinnipiac provost, this award is presented to the senior(s) who have exhibited outstanding achievement in both the academic and senior research settings in chemistry.
## The Benjamin and Juliette Trewin Award for Academic Excellence in Nursing

This award recognizes academic excellence and exceptional potential in the discipline of nursing. It is presented to the senior nursing student with the highest overall grade point average. The award is supported by the Benjamin and Juliette Trewin Memorial Endowed Fund, which was established for the nursing program by Estelle Trewin Beecher in memory of her parents.

## The Benjamin and Juliette Trewin Award for Professional Leadership in Nursing

This award recognizes outstanding leadership and exceptional potential in the discipline of nursing. It is presented to the senior nursing student who has made significant contributions to the nursing program and the greater community of nursing. The award is supported by the Benjamin and Juliette Trewin Memorial Endowed Fund, which was established for the nursing program by Estelle Trewin Beecher in memory of her parents.

## Philip Troup Achievement Prize

In memory of Judge Philip Troup, first president of Quinnipiac, a gold key is awarded to a graduating senior who has contributed most to the welfare of Quinnipiac through strength of character and qualities of leadership.

## Wall Street Journal Award

This award is presented to a student for achievement in finance.

## West Educational Publishing Student Award

This award is given to two graduating legal studies students who have demonstrated outstanding achievement and professional growth.

## Who's Who Among Students in American Universities and Colleges

This prestigious award is given to graduating seniors who have demonstrated outstanding scholarship and leadership.

## College of Arts and Sciences Award for Special Achievement

This award is given to the graduating senior in the College of Arts and Sciences who has a record of exceptional achievement in the face of adversity. The award was established in honor of Morris Woskow, former professor of psychology and dean.

## Writing Across the Disciplines Student Award

 Quinnipiac University's Writing Across the Curriculum (QUWAC) program awards two $\$ 250$ writing prizes to students nominated by faculty for having produced writing deemed exemplary for the discipline. An impartial subcommittee of QUWAC chooses the winners. The prize works are then published in the First-Year-Writing Program's handbook for the next year.
## Wyckoff Moore Family Memorial Scholarship

 The fund was established in memory of members of the Wyckoff Moore family. The award is given to a part-time student who has achieved senior status, completed 30 credits and earned a GPA of 3.5 .

## Other Academic Opportunities

## Albert Schrweitzer Certificate for Ethics and Responsibility

This certificate program, affiliated with the Albert Schweitzer Institute, enables students to be recognized for their service to others in keeping with the ideals of the 1952 Nobel Peace Prize Laureate, Dr. Albert Schweitzer. Students earn points toward this certificate through directed academic engagement and volunteer activities. To earn the certificate, eligible students take pre-approved courses that reflect the thought of Dr. Schweitzer or have a service-learning designation, and participate in a variety of service-based activities. Examples of these activities include an alternative spring break opportunity, a semester-long internship program, an internship with a service organization on or off campus, or assuming a leadership role in a campus organization or off-campus non-governmental organization.

## Albert Schweitzer Fellowship Program

This Fellows program, affiliated with the Albert Schweitzer Institute, builds on the Albert Schweitzer Certificate for Ethics and Responsibility by requiring a deeper level of commitment. Interested students are required to organize and lead two off-campus service learning activities,

experiences or projects; participate in a national or international service experience; create an ongoing relationship with a local, national or global partner; keep a journal to reflect on their experiences, and, as a senior, write a paper synthesizing their experience as an Albert Schweitzer Fellow. A one-credit course (credit optional) also is required.

Given the strong interest by potential employers, graduate schools, and professional schools in ethical behavior and concern for others, both of these programs are structured to help a student easily demonstrate his or her dedication to these important values.

## Office of Multicultural and Global Education

Quinnipiac University strives to prepare graduates who manifest critical and creative thinking, effective communication skills, informed value judgments, and who possess an educational foundation for continued growth and development in a changing world of diverse cultures and people.

The chief diversity officer oversees the Office of Multicultural and Global Education, located in Academic Affairs. To better understand the changing world order, at Quinnipiac we believe in working in the intersection of internationalization and multicultural education, which provides creative opportunities for faculty, staff and administrators to:

- help students understand multiculturalism and social justice in a global context
- develop intercultural skills
- broaden attitudes an experiences for students such as study abroad, global service learning, and courses with a travel component
- examine values, attitudes and responsibilities for local/global citizenship
- see how power and privilege are shifting the local/global context
- prepare students to cooperate and compete in a multicultural and global workplace

The officer works closely with the director for multicultural education, the director for global education, and other campus constituencies to ensure that multiculturalism and internationalism are embraced, celebrated and advanced for our students, faculty and staff. The OMGE provides the following services.

## Multicultural Education

Multicultural education provides advocacy for the cultivation of a sustainable campus environment that is supportive of a diverse student body.
Services provided by this office include:

- Works collaboratively with academic and administrative units to foster intercultural dialogue and programming.
- Delivers academic and social mentorship for underrepresented students to live, work, lead and succeed in a multicultural and global world.
- Assists multicultural student organizations in leadership development to enhance their active engagement and participation in the University community.
- Offers programming that enhances students' understanding and appreciation of various, ethnic, racial, sexual orientation, socioeconomic class and other cultural identities.
- Provides opportunities for students and faculty to learn about, embrace and celebrate diverse ethnic, racial and cultural identities.


## Global Education

Global education promotes, supports and develops a wide range of international and intercultural opportunities for all members of the community. Services provided by this office include:

- Provides international experiences through education abroad.
- Maintains a supportive and stimulating environment for international students, faculty and staff.
- Hosts events and programs to increase the international activities at Quinnipiac.


## International Student Services

The Office of Multicultural and Global Education provides services for the international student population at Quinnipiac University. The office organizes on- and off-campus programs and events that are open to both international and domestic students. Services are provided from the time of acceptance through completion of the program, and many times extend beyond the program end date. Services include preparation of documents for visa issuance and work authorization, as well as workshops on employment, taxes and immigration procedures. Additionally, the office hosts a comprehensive orientation program each semester to prepare incoming international students and

scholars for life and study at Quinnipiac University. For more information, contact the Office of Multicultural and Global Education at 203-582-8425 or via email at international.student@quinnipiac.edu.

## Education Abroad

Quinnipiac students participate in semester, shortterm, and faculty-led programs abroad in various countries such as Ireland, Australia, Costa Rica, Spain, Italy and China, to name a few. All students are advised to plan early for study abroad and attend an information session offered throughout the semester.

## Semester Abroad Policies:

1. Students must maintain a minimum GPA of 3.0. Students whose GPA falls between 2.6 and 2.9 must submit the Request for Waiver of GPA Requirement form. In special circumstances, Quinnipiac University may approve a waiver in its sole discretion. Students whose GPA falls below 2.6 are not allowed to study abroad. It should be noted that approved study abroad programs may have additional GPA requirements.
2. Students must not have any existing or pending conduct sanctions. Students with a conduct sanction or who have one placed on them after being accepted to study abroad must submit a Request for Waiver of Conduct Clearance. In special circumstances, Quinnipiac University may grant permission to study abroad in its sole discretion.
3. The study abroad program must be preapproved by the Quinnipiac University Office of Multicultural and Global Education.
4. Students must maintain full-time student status (i.e., 12-16 class credits) while abroad. In certain countries, a normal semester load can consist of four courses, which can be equivalent to 12 QU credits. Students can take five courses if necessary, however, in certain cases this can be a significantly difficult workload, and may not be advisable. Please note that there also may be an additional fee for enrolling into a fifth course, and/or special permission required from the host institution.
5. Students studying abroad are required to receive approval from their academic advisers and respective dean(s) for all courses listed on the Study Abroad Registration Form.
6. Students must comply with all policies and procedures as outlined by the QU Procedures for Studying Abroad.
7. Quinnipiac students study abroad payment includes, but is not limited to: a registration fee, Quinnipiac's full-time tuition, the cost to live in the Quinnipiac Commons Residence Hall, less the dining service fee, and an obligatory overseas emergency and medical insurance fee. If the Quinnipiac-approved study abroad program costs exceed the sum of Quinnipiac's tuition and housing, the difference will be paid to Quinnipiac by the student. When studying through a Quinnipiac-approved study abroad program, the student is responsible for paying any refundable security deposits, program application fees and/or program withdrawal fees directly to the study abroad program. Depending on the study abroad program, students also may be expected to cover the cost of additional expenses including, but not limited to: airfare, visa, meals, academic materials, public transportation, personal travel, etc. Inclusions and exclusions may vary by program.
8. Students are required to reside at the study abroad program resident/program housing.
9. Students who receive financial assistance at Quinnipiac may apply their financial aid for study abroad, including federal aid, state grants, college grants and scholarships.
10. Withdrawal from a program initiated by the student, Quinnipiac, the program affiliate, and/or the host institution will result in a loss of fees and tuition in accordance with Quinnipiac's refund policy. Depending on the circumstances of the withdrawal, the student
may be subject to action based on Quinnipiac's Student Conduct System.
11. For Quinnipiac students studying abroad, the credits and grades for approved courses taken abroad become part of the students' academic transcript, and all grades are included in the calculation of the students' GPA. Grades are the exclusive prerogative of the faculty members teaching the courses. If students have questions about grading in any particular course, they must consult the faculty member teaching that course. Questions involving grades issued for study abroad course undertaken through other institutions should be directed to those institutions. Quinnipiac will not change grades issued by another institution.
12. Students may not take classes for a pass/fail grade unless there is no other grade given for that course.
13. Students who have not completed the Study Abroad Course Registration Form, complied with policy and procedure as outlined by the Quinnipiac Procedures for Studying Abroad, will not receive transfer credit and will be ineligible to study abroad through Quinnipiac University.

## Short-term Study Abroad Policies

1. Students must be in good academic standing and must not have any existing or pending conduct sanctions. Students with a conduct sanction or who have one placed on them after being accepted to study abroad must submit a Request for Waiver of Conduct Clearance. In special circumstances, Quinnipiac may grant permission to study abroad in its sole discretion.
2. The short-term study abroad program must be preapproved by the Quinnipiac Office of Multicultural and Global Education.
3. Students shall be limited to two courses taken abroad during their short-term program. If more courses are requested, then the student must file a variant procedure with the dean of their college or school.
4. Students are eligible to apply for financial aid if they are enrolled in 6 credits. Please inquire with the Financial Aid Office for further information.
5. To receive credit for classes taken abroad on a short-term program, students must have preapproval from the associate dean of her/his
school prior to the set deadlines stated in the Quinnipiac Procedures for Studying Abroad.
6. A grade of "C" or better will be accepted for transfer credits for all short-term study abroad programs. No letter grade is given for these credits. If the short-term program course grades are less than C , the credits are not accepted at Quinnipiac University.
7. Students are not exempt from the Undergraduate Summer Credit Policy as outlined in the Course Schedule and Registration Bulletin, which prohibits students from taking more than 7 credits during the summer.
8. Students who have not completed the Summer Study Abroad Registration Form or complied with policies and procedures as outlined by the Quinnipiac Procedures for Studying Abroad, will not receive transfer credit and will be ineligible to study abroad through Quinnipiac University.
9. When studying through a Quinnipiac-approved short-term study abroad program, the student is required to pay the program cost directly to the program. The student is responsible for paying Quinnipiac's study-abroad health insurance, and an emergency medical/security service plan. Payment must be given to the Office of Multicultural and Global Education by set deadlines. This fee will be paid for each month the student is out of the country. Failure to make the required payments will disqualify a student from receiving transfer credit.

## Quinnipiac in Cork, Ireland

All Quinnipiac students also have the opportunity to study at University College, Cork, in Ireland for a semester, academic year, January or summer term. Through this direct program, students are encouraged to fully participate in the programs and courses offered by UCC. For more information, visit the UCC website: www.ucc.ie/international.

## Internships

Internship opportunities are available for qualified students through Quinnipiac's custom and affiliate programs. In addition, Quinnipiac maintains an involvement in the Oscar Arias Foundation through its sponsorship of the Arias-Schweitzer Internship. This provides students a special opportunity to work on some of the most pertinent issues in Latin America.

## Faculty-led Programs

Quinnipiac faculty members also plan courses with a study-abroad component to various countries during the January term, Spring break, and summer terms. Some of the countries visited include Canada, Costa Rica, various European countries and South Africa. Students interested in participating in a Quinnipiac faculty-led program should contact the Office of Multicultural and Global Education.

## Campus Ministry

The Office of Campus Ministry provides spiritual and pastoral counseling, worship, sacraments and celebratory activities. A full-time priest, rabbi and Muslim chaplain are on staff, as well as a part-time protestant minister who represent their own faith communities, and are the spiritual representatives at University gatherings such as Commencement and Convocation. The chaplains strive to create an environment that will enhance religious and spiritual awareness. The Rev. Hugh Vincent Dyer's office is located on the second floor of the Student Center in room 205. He can be reached at 203-582-8257. Rev. Susan Fowler, PhD, is the University's protestant minister. Her office is located on the second floor of the Student Center, room 202J. She can be reached at 203-582-6477.

Shamshad Sheik is the Muslim chaplain. Her office is located on the second floor of the Student Center, room 202L. She can be reached at 203-582-6479.

Rabbi Reena Judd's office and all Jewish events are held at Quinnipiac's Hillel House, located on New Road. For more information about Hillel, contact Rabbi Reena Judd at 203-582-8206 or email reena.judd@quinnipiac.edu.

## School of Law

The School of Law offers programs of day and evening courses leading to the JD degree.

A full complement of student organizations exists at the law school, including a nationally honored Student Bar Association. In the tradition of American law schools, the School of Law sponsors student-edited scholarly journals, the Quinnipiac Law Review, the Quinnipiac Health Law Journal and the Quinnipiac Probate Law Journal, which contribute both to student education and to legal scholarship. The law school also is host to two legal fraternities, Phi Alpha Delta and Phi

Delta Phi. To contribute to the development of advocacy skills, the law school has a Moot Court Society and a Mock Trial Team. The law school also has a number of law associations such as the Black Law Students Association, the Women's Law Society, the Latin American Law Association, the Environmental Law Society, the International Human Rights Law Society, and the Sports and Entertainment Law Society.

The School of Law has several clinics and numerous externships through which students do pro bono work in the community and acquire practical legal skills.

## Prelaw

Students interested in attending law school must have a BA or BS degree and have taken the Law School Admission Test. No single prelaw course of study is required or recommended. Several broad objectives of prelegal education, however, have been set forth by the Association of American Law Schools.

Students should take a range of courses that provide fundamental skills and understanding of language, the ability to think and write clearly and succinctly, logical reasoning and analytical skills, and an appreciation of social, political and economic foundations and complexities.

Toward this end, every prelaw student should carefully choose, with the assistance of his or her academic adviser and/or the prelaw adviser, courses that hone those skills listed. Students or graduates who have an interest in law school should contact Quinnipiac University prelaw adviser, Jessica Hynes, at 203-582-3688, CLA-1, room 337, or jessica.hynes@quinnipiac.edu for further information and, if appropriate, should join the Prelaw Society to learn more about the LSAT and law school admissions and financial aid.

## Frank H. Netter MD School of Medicine

 Pending approval by the Liaison Committee on Medical Education and the state of Connecticut's Office of Financial and Academic Affairs for Higher Education, the Frank H. Netter MD School of Medicine will begin receiving applications in October 2012 for its charter class of 60 students, who will begin classes in August 2013.The School of Medicine will be a model for educating diverse, patient-centered physicians who are partners and leaders in an interprofessional
primary care workforce responsive to health care needs in the communities they serve. It will enable students to attain their highest personal and professional potential in a collaborative environment that fosters academic excellence, scholarship, lifelong learning, respect and inclusivity. The school embodies the University's commitment to the core values of academic excellence, a student-oriented environment and a strong sense of community.
Accordingly, the school values:

- diversity and inclusiveness in all students, faculty, and staff
- excellence in education that places the student at the center of the learning experience, and nurtures the student's independence as a lifelong learner
- a learning environment that promotes the provision of holistic, patient-centered primary care
- interprofessional education and servicelearning experiences to promote teamwork in the care of patients
- clinical partners who support and promote the school's vision, mission and values
- social justice and the education of physicians to address health care inequities
- partnerships within our community that provide students with learning and service opportunities to improve the health of the community
- advancement of global health by promoting primary care, patient education, community medicine, public health and international partnerships
The four-year curriculum leading to the MD degree is comprehensive and integrated. Core biomedical principles are correlated temporally and contextually with behavioral, clinical and allied health sciences. The curriculum emphasizes active student learning designed to equip graduates with the tools to be effective lifelong learners. Learning occurs in a variety of settings: small-group conferences, case-based learning seminars, lectures, with patients and independent study.

The curriculum is holistic in scope; content such as prevention and wellness promotion, population health, complementary and alternative medicine, and the study of contemporary health care systems are incorporated into discussions of the traditional diagnosis and treatment of medical diseases.

Each course has longitudinal themes that anchor the content in a pedagogically relevant and cohesive manner. These significant learning experiences shift the focus from "what is taught" to "what and how students learn." The longitudinal themes include medical informatics, biostatistics, epidemiology, ethics, nutrition and sociobehavioral science.

Students begin clinical experiences in their first year and assume increased clinical responsibility in their second through fourth years. They have opportunities to formally study clinical skills during the clinical arts and sciences course, which uses standardized patients and state-of-the-art simulation labs. Students also meet weekly with a primary care physician, seeing patients, practicing clinical skills, and learning how to work effectively with other health care team members. The first year follows an organ system approach to biomedical sciences, focusing primarily on normal human function. To increase the medical context of this approach, students learn the fundamentals of common diseases in each curricular area. Year 2 follows a pathophysiological approach to content, exploring topics in greater depth and with enhanced sophistication and understanding. Students are exposed to a broad array of human diseases and best practices for diagnosis and management.

Students are allowed to individualize their medical education by selecting a field of concentration for elective course work. The elective
course work provides the foundation for a student's capstone project, an independent research project. Elective concentration areas may include health management, policy, economics, law, education (including interprofessional education), global health, communications, ethics, humanities, or the student may design a novel concentration area with the support of a faculty adviser.

## Premedical Studies

The premedical studies program is designed for students who are interested in health professions that include, but are not limited to, medicine (allopathic and osteopathic), dentistry, physician assistant, pharmacy, optometry, chiropractic, physical therapy, podiatry and veterinary medicine. Admission to graduate programs in the health professions normally requires additional courses outside of the chosen major. This additional study can be accomplished through the premedical studies program, which provides undergraduate students with the appropriate educational and experiential background necessary to meet the entrance requirements (including course work required to prepare for standardized entrance examinations) of the different graduate programs in the health professions.

The premedical studies program must be declared in addition to another degree and is NOT a stand-alone program.

Students should seek advice directly from a member of the Health Professions Advisory Committee. In addition to helping students to select courses, faculty advisers from the Health Professions Advisory Committee suggest extracurricular activities to meet the specific requirements for the field of interest. These activities include participation in basic/applied research; clinical work; volunteer work; experiences that increase personal integrity, interpersonal skills, maturity and illustrate a genuine interest in medicine (i.e., alternative spring break opportunities and philanthropic activities); leadership experiences/effective teamwork; computer literacy; and opportunity to develop interviewing skills. The committee also writes letters of recommendation for individuals applying to postgraduate studies in the health professions that require a committee letter.

## Grade Requirements

Many professional schools require a minimum grade point average to apply for and gain admission. Completion of the requirements of the premedical studies program or the medical scholar component does not guarantee acceptance to graduate programs, as it is only one criterion among many that are used in determining admission. As such, the premedical studies program has the following minimum GPA requirements:

- Overall Grade Point Average (GPA) 3.0
- Science GPA 3.0

Even though a student may be in the premedical studies program, they must meet the GPA and course requirements upon graduation to have this designation appear on their transcripts with their degree. The premedical studies program designation will not appear on transcripts if the GPA and course requirements are not met at graduation, but the student will still graduate with the degree that they originally declared if they meet those degree requirements.

## Medical Scholar

Students in the premedical studies program also may receive the designation of medical scholar if the following additional requirements are met: - overall Grade Point Average (GPA) 3.67

- science GPA 3.67
- competitive scores on standardized examinations
- recommendation of the Health Professions Advisory Committee
Candidates will not achieve their final medical scholar designation on their transcripts until graduation requirements are complete. At that time, the awarding of the medical scholar designation is made based upon the above requirements and the recommendation of the Health Professions Advisory Committee.

The Health Professions Advisory Committee will make the final award based upon a review of health care and/or research experience, a portfolio, and interviews during the junior and/or senior year.

## Course Requirements

All courses listed in this section may count toward both the major (if allowed) and the premedical studies program.

## Required Courses

(All Courses Required for a Minimum of 44 Credits)
Students must complete all of the listed required courses, as they are the minimum prerequisites for admission to most medical schools and form the basis of standardized admission tests (Medical College Admission Test, Dental Admission Test, Optometry Admission Test, and Pharmacy College Admission Test).

| Course | Title | Credits |
| :--- | :--- | ---: |
| Biology 101-101L | General Biology I (Lecture \& Lab) | 4 |
| Biology 102-102L | General Biology II (Lecture \& Lab) | 4 |
| Chemistry 110-110L | General Chemistry I (Lecture \& Lab) | 4 |
| Chemistry 111-111L | General Chemistry II (Lecture \& Lab) | 4 |
| Chemistry 210-210L | Organic Chemistry I (Lecture \& Lab) | 4 |
| Chemistry 211-211L | Organic Chemistry II (Lecture \& Lab) | 4 |
| Physics 110-110L | General Physics I (Lecture \& Lab) | 4 |
| Physics 111-111L | General Physics II (Lecture \& Lab) | 4 |
| English 101 | Elements of Composition I | 3 |
| English 102 | Elements of Composition II | 3 |
| Mathematics 141 | Calculus of a Single Variable I | 3 |
| Additional Mathematics Course | 3 |  |
| $\quad$ Mathematics 140 |  |  |
| $\quad$ or Mathematics 142 |  |  |
| $\quad$or a course in applied statistics <br> Recommended Elective Course Work |  |  |

Pre-Calculus and Calculus of a Single Variable II
Students are encouraged to check the specific prerequisite course requirements of any health professions program to which they intend to apply. The selection of additional courses, especially those emphasizing critical reading and writing should be at the discretion of the student in consultation with the student's academic and prehealth professions advisers.

Many professional schools recommend additional elective course work in preparing for admission. Course work in the humanities and social sciences provide breadth, and science electives provide a more extensive background for subjects covered by the standardized admissions tests. Students should engage in individual or team research experience as a course or independent study.

The most commonly recommended science courses by medical schools in the area surrounding Quinnipiac University (CT, MA, NH, NJ, NY and PA) based upon the Association of American

Medical Colleges (AAMC) publication Medical School Admission Requirements (MSAR ${ }^{\circledR}$ ) include biochemistry and genetics, while the 5th Comprehensive Review of the Medical College Admission Test (MR5) also notes the importance of cell biology.

## Transfer Students

Students who transfer to Quinnipiac University and want to pursue the premedical studies program still need to have completed all of the prerequisite courses. Although Quinnipiac University may transfer the credits for courses taken elsewhere and not the grades, for the premedical studies program, grades from required and/or elective courses from other institutions will be used to ensure that a GPA of at least 3.0 based upon all premedical studies courses. The overall GPA for transfer students will be calculated as for all other transfer students (based only on the courses completed at Quinnipiac University).

## Advanced Placement Credits

Some health professions schools accept AP credits provided that applicants replace courses for which AP credit has been granted with a course in the same discipline at a higher level. Other schools, including many medical schools, do not accept AP credits as a replacement for prerequisite science courses. Students are encouraged to check with the specific course requirements of any graduate health profession program to which they intend to apply.

## Field Studies

During summer, winter and spring vacations, Quinnipiac offers faculty-led field trips for credit to sites in the United States and abroad. Field studies trips, to carefully selected locations, are designed to take advantage of the unique educational opportunities made possible by direct contact with other cultures. Pre-trip orientation and on-site instruction are provided by the faculty.

## Washington, D.C., Semester Programs

Washington, D.C., Semester Programs are multidisciplinary, experiential learning programs bringing students from around the nation and the world to semester-length internships, research projects and seminars in the national capitol. Students in any major may apply. Quinnipiac is
affiliated with two organizations, which offer modules that focus on students' particular areas of interest, such as American politics, economic policy, journalism, international development and the arts. Occasionally students have the opportunity for two-week inter-term and summer seminars. All students must complete an independent research project related to their experience in the program.

To be eligible, Quinnipiac students must have a minimum GPA of 3.00 and not be under judicial sanctions. Students must pay full-time Quinnipiac tuition for the semester in Washington, D.C. An additional fee (based on the cost difference between Quinnipiac tuition and the program sponsor's fee) is assessed each student who selects a Washington semester program whose costs exceed Quinnipiac's tuition. Students receiving financial aid at Quinnipiac may apply their aid to the Washington, D.C., semester; this includes federal aid, state grants, and college grants and scholarships. Additional scholarships from the affiliated programs or other sources may also be applied to tuition or housing costs. For details about the programs and application deadlines, please contact Professor Scott McLean in the Department of Political Science, at 203-582-8686.

## SQUID Certificate Program

SQUID stands for Scholars at Quinnipiac University Integrating Difference. This certificate program, offered through the College of Arts and Sciences, is designed to acknowledge the effort students have made to learn about the broad variety of human experience. Students in any undergraduate program who are interested and who complete three SQUID-designated courses of their choice are eligible to achieve a certificate from the College of Arts and Sciences that reflects the commitment they have made to diversify their college curriculum. Many students seek out opportunities to learn about people in societies who have been historically underrepresented and underprivileged. Interested students should contact Prof. William Jellison in the College of Arts and Sciences.

## Other Academic Resources

## Arnold Bernhard Library

The Arnold Bernhard Library serves the undergraduate and graduate populations of the University and provides support for the Quinnipiac University School of Law. Approximately 48,000 square feet in size, the Bernhard Library provides 600 seats, 13 group rooms, a 30 -seat instructional facility, more than 60 public computer terminals, and nearly 600 power/data connections for laptop computers.

In addition to the group study rooms, students can select from individual study carrels, tables, soft seating and rocking chairs with magnificent views when they visit the facility. A large variety of webbased resources (including a growing number of full text/full image titles) are available, as well as printed volumes, microforms and audiovisual materials. Supporting this new facility are the combined staffs of the library, academic technologies and media services.

This building also houses the clock tower, the executive suite, the Offices of Administrative Services, the Bursar, Registrar, Procurement and Information Services.

## Bioanthropology Research Institute

Quinnipiac's Bioanthropology Research Institute, administered through the School of Health Sciences, provides research opportunities for students and faculty in a variety of disciplines. Research projects, field experiences and international course work provide unique opportunities to experience current and ancient cultures. Research projects often lead to publications and presentations at professional conferences. The field of bioanthropology naturally crosses many disciplines, including both science and arts. The Bioanthropology Research Institute has formal relationships with international research groups such as Centro Mallqui in Peru as well as with many well-known domestic and international museums.

Students should contact the School of Health Sciences for more information.

## Bristol-Myers Squibb

Center for Science Teaching and Learning
Quinnipiac University's Bristol-Myers Squibb Center for Science Teaching and Learning is a network of scientists and educators working in concert to advance the art of science education from kindergarten to university level.

The center draws on the expertise of:

- Quinnipiac's departments of biological sciences and chemistry and physical science in the College of Arts and Sciences
- Quinnipiac's School of Education
- Statewide K-12 school districts
- Schooner, Inc.
- BioBus
- CT Academy for Education
- Various governmental partners, including the Department of Environmental Protection
In recent years, the United States has fallen far behind other developed nations in its preparation of students for careers in science, math and technology (ranking 15th in math and 9th in science worldwide), as well as failing to provide basic science literacy to its citizens. In response to this desperate need, the center offers professional development experiences for $\mathrm{K}-12$ teachers in proven techniques for successful science instruction.

Currently, the Bristol-Myers Squibb Center for Science Teaching and Learning provides professional development workshops for teachers in inquiry-based teaching methods and provides innovative tools with which to teach science. The center strives to support student proficiency and achievement in science.


## Center for Interprofessional Healthcare Education

The Center for Interprofessional Healthcare Education at Quinnipiac University strives to achieve the University's three core values: highquality academic programs, a student-oriented environment and a strong sense of community in the development of health care professionals who work collaboratively to provide evidence-based and coordinated patient or client-centered health care. The mission of this center is to develop, promote and measure the effectiveness of interprofessional learning opportunities for faculty and students that lead to effective team-based practice.

Interprofessionalism is a process by which two or more professionals work collaboratively to critically examine issues in health care education and practice. The overarching purpose of the center is to develop opportunities for faculty, students and community partners to learn together to promote team practice that meets the challenges of future health care systems.

## Clarice L. Buckman Center and Theater

This building houses science laboratories, faculty offices, classrooms, and a 177 -seat theater for lectures and theater performances.

## Technology Assistance

All incoming students are required to have a laptop computer readily available to them with no exceptions. Information Services annually recommends a specific hardware and software laptop configuration that meets or exceeds these technical standards (specific information on the most current program can be found at www.quinnipiac.edu/x1209.xml). By selecting the recommended laptop, students will receive exceptional service and support on and off campus. Students who elect to bring their own laptops to campus (other than the recommended one) also will be afforded technology assistance often of a less comprehensive nature due to the many possible variations of alternatives. Ultimately, it is the responsibility of the student to perform in the classroom.

Although laptops meet the vast majority of student needs, for those disciplines that require more specialized hardware or software, the University has more than 350 computers in 12

computer laboratories throughout the campus. The University maintains a secure and advanced data network that connects all University computers on all three Quinnipiac campuses. Students, faculty and staff are able to access this secure network through wired and wireless access. Wireless access is found across all three campuses, including the residence halls, classrooms, athletic fields and public areas.

The Arnold Bernhard Library is open 24 hours a day during the academic year, and contains more than 100 publicly available computers, as well as the Technology Center, where faculty and students can receive computer repair services and help with equipment and software for capturing and processing digital audio, images and video. The library also provides an extensive collection of online bibliographic databases and full text journals for use in the library or remotely through the campus network.

## Terry W. Goodwin '67 <br> Financial Technology Center

Quinnipiac University created its own state-of-the-art Wall Street trading room with the Terry W. Goodwin '67 Financial Technology Center in the Lender School of Business Center. The 2,000 square-foot center allows students to make realtime investment decisions and learn how the financial markets work by managing a real-life student portfolio. Software installed in the center's 53 computer workstations allows students to access real-time financial data, practice analytical finance methods, conduct trading simulations, analyze economic databases and develop financial models.

## Learning Center

The Learning Center assists students in reaching their academic potential by offering various programs of academic support. Learning Center offices are located in Tator Hall, on the first floor.

Quinnipiac's nationally certified peer tutor program offers individual peer tutoring in nearly all 100-level courses, many 200- and 300-level courses and supports many of the graduate degree programs. Tutoring is content-specific and addresses both entry-level and advanced courses such as mathematics, writing, science and many other specialized subject areas.

Content is only one aspect of the educational experience. The Learning Center also offers learning skills seminars, weekly meetings that address specific skills interactively. In addition, class-specific workshops and individual meetings all help students achieve their academic potential. Working with students to identify the strengths and weaknesses they bring to the university experience, the Learning Center staff helps students develop skills and strategies that contribute to their success at Quinnipiac, the better to be prepared for their career.

The Learning Center staff also coordinates the Advanced Learning Seminar. This seminar, meeting weekly, is open to students on academic probation who meet specific criteria. Through assessment and subsequent individual action plans, students work toward specific academic goals that reinforce their success in the University environment.

The Learning Center recognizes that people learn differently. Following the guidance of ADA/504, the coordinator of learning services meets individually with students who disclose a disability, assisting them to meet the academic challenges they face.

The Learning Center offers a venue for academic support. Staffed by helpful professionals, equipped with appropriate technology and texts, the Learning Center is an important facet of a successful student's experience at Quinnipiac. For more information, contact the director of the Learning Center.

Lender School of Business Center and Ed McMabon Mass Communications Center
This state-of-the-art building contains case study rooms, two local area network (LAN) rooms, classrooms, an executive conference center, faculty offices and executive offices for the senior vice president for academic and student affairs and the dean of the School of Business-all of which are linked by a highly sophisticated computer network. This building also houses the Ed McMahon Mass Communications Center, a modern and wellequipped media production facility that provides students with a completely digital high-definition television (HDTV) studio, the latest in broadcast technology, a spacious, professional-level television studio, a Pro Tools HD audio studio, a fully computerized newsroom with 25 workstations and Associated Press wire service, advanced non-linear digital video editing systems, a digital desktop production lab for interactive multimedia design, website development, electronic publishing and digital imaging, an audiovisual production resource depot and a screening room with video projection and theater-quality sound. Two cable television channels originate from the McMahon Center, providing the campus with student-produced programming from the Q30 student television organization as well as other cablecasts.

## Albert Schweitzer Institute

The Albert Schweitzer Institute is an international, nonprofit organization that conducts educational programs. Inspired by Dr. Albert Schweitzer's exemplary humanitarian service and concept of "reverence for life," the institute's programs:

- focus on health, humanitarian and peace efforts
- support health care development in underserved areas
- motivate young people to serve the community and the environment as a way of life
- increase public awareness of Schweitzer's philosophy and its potential for a more peaceful and sustainable world.
The institute, located adjacent to the campus at 660 New Road, houses the offices of its executive director as well as the Albert Schweitzer museum, which consists of artifacts from Schweitzer's collections and other humanitarian exhibits. Schweitzer was the recipient of the Nobel Peace Prize in 1952.


## North Haven Campus

## School of Education

The School of Education is located in Building 1 on the North Haven Campus. Classes for students in the master of arts in teaching program and the educational leadership program are taught on this campus.

The Education Suite is designed specifically for teachers in training. Two specially equipped classrooms feature expanded cabinet and storage space for curriculum materials and touch-screen SMART boards. Education classes take place in these rooms, as well as in other classrooms in Building 1.

In addition, the new space gives full-time faculty members private offices, and includes a sitting area where students and faculty can meet informally and a large curriculum center with windows overlooking the campus pond and lawns.

## School of Health Sciences

The Quinnipiac University School of Health Sciences is located in Building 1 on the North Haven Campus. The facility serves upperclassmen and graduate students in the biomedical sciences, cardiovascular perfusion, diagnostic imaging, occupational therapy, pathologist's assistant, physical therapy, physician assistant and radiologist assistant programs.

The facility houses several high-tech labs, including the CT Scan Lab and the MRI Lab. Quinnipiac is the only university to have MRI and CT equipment primarily for teaching and research purposes.

Other labs include two radiography labs, an ultrasound lab and a mammography lab as well as the Movement Study Lab, which enables occupational therapy students to work with people who have sensory integration dysfunction; the Motion Analysis Lab, where movement is studied through a kinematic analysis system; the Biomechanics Lab, the Learning Lab, and the Ergonomics and Assistive Technology Lab.

The Model Apartment provides a space for students to practice the techniques that can make independent living possible for those with physical disabilities, developmental disabilities, and well elderly.

Additional resources include the Orthopedics Lab and six spacious rehabilitative sciences labs, as well as the Clinical Simulation Labs, carefully crafted hospital rooms that house lifelike simulation mannequins, which can be programmed with a variety of medical ailments and illnesses. QU's SimMan patient simulator family includes three adults, an infant and a newborn.

The Pediatric/Neonatal Lab, a working laboratory, filled with infant mannequins, introduces students to this special area of health care in the acute setting.


Other state-of-the-art health care facilities include the Clinical Skills Labs and the Intensive Care Unit, which are used to create real-world conditions to prepare students for clinical training assignments; the Physical Diagnosis Lab, Physical Exam Suite and Health Assessment Lab, which duplicate care in an outpatient primary care setting, such as an emergency room or doctor's office.

## School of Nursing

The Quinnipiac University School of Nursing, located in Building 1 on the North Haven Campus, offers undergraduate and graduate programs in the field of nursing. A state-of-the-art facility and cutting-edge resources are available to students. Specialty lab units include the Clinical Simulation Labs, carefully crafted hospital rooms that house lifelike simulation mannequins that can be programmed with a variety of medical ailments and illnesses. QU's SimMan patient simulator family includes three adults, an infant and a newborn.

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## Schools and Colleges

All Quinnipiac University programs fall within eight major academic areas:

- College of Arts and Sciences
- Frank H. Netter MD School of Medicine
- School of Business and Engineering
- School of Communications
- School of Education
- School of Health Sciences
- School of Law
- School of Nursing


## Degree Programs

Quinnipiac offers undergraduate programs leading to bachelor of arts or bachelor of science degrees.

## Bachelor of Arts (BA)

Communications (p. 119)
Criminal Justice (p. 80)
English (p. 66)
Film, Video and Interactive Media (p. 116-117)
Game Design and Development (p. 82)
Gerontology (p. 80)
History (p. 68)
Independent Majors (p. 57)
Interactive Digital Design (p. 83)
Journalism (p. 118)
Concentrations:
Broadcast Journalism
Print Journalism
Legal Studies (p. 69)
Liberal Studies (p. 163)
Mathematics (p. 71)
Philosophy (p. 75)
Political Science (p. 75)
Psychology (p. 77)
Concentrations:
Human Services
Industrial/Organizational
Public Relations (p. 120)
Social Services (p. 81)
Sociology (p. 81)
Spanish Language and Literature (p. 73)
Theater (p. 83)

## Bachelor of Fine Arts (BFA)

Film, Video and Interactive Media (p. 117)

## Bachelor of Science (BS)

Accounting (p. 96)
Advertising (p. 110)
Athletic Training (p. 124)
Behavioral Neuroscience (pp. 62, 78)
Biochemistry (p. 63)
Biology (p. 59)
Biomedical Marketing (p. 111)
Biomedical Sciences (p. 128)
Chemistry (p. 63)
Computer Information Systems (p. 97)
Computer Information Systems and Accounting (p. 98)

Computer Science (p. 72)
Diagnostic Imaging (p. 136)
Economics (p. 99)
Engineering, Civil (p. 100)
Engineering, Computer Software (p. 100)
Engineering, Industrial (p. 101)
Engineering, Mechanical (p. 102)
Entrepreneurship and Small Business Management (p. 103)
Finance (p. 106)
Health and Science Studies (pp. 131, 162)
International Business (p. 108)
Management (p. 108)
Marketing (p. 109)
Microbiology/Molecular Biology (p. 132)
Nursing (p. 155)
Occupational Therapy (see MOT, page 139)
Physical Therapy (see DPT, page 144)
Physician Assistant (entry-level) (p. 134)
Premedical Studies (p. 45)

## BA/MAT Program

Elementary Education (pp. 57, 188)
Secondary Education (pp. 58, 188)
Master of Arts in Teaching (MAT) (р. 188)
The master of arts in teaching program for elementary certification prepares students for careers as teachers in elementary schools (grades K-6).

The master of arts in teaching program for secondary education prepares students for careers as teachers in any one or more of the following disciplines: Biology, English, History and Social Sciences, Mathematics, Spanish

## Sixth-Year Diploma in <br> Educational Leadership (p. 195)

The sixth-year diploma in educational leadership program prepares graduates to be exceptional school leaders.

## Master of Science in Teacher Leadership (online) (p. 194)

## Master of Business Administration (MBA)

MBA (p. 178)
MBA/CFA ${ }^{\circledR}$ (Chartered Financial Analyst Track) (p. 180)

MBA/Health Care Management Track (p. 179)
MBA/Supply Chain Management Track (p. 180)
Also:
Combined BA/MBA program (pp. 58, 180)
Combined BS/MBA program (p. 181)
Joint JD/MBA (p. 181)

## Master of Health Science (MHS)

Anesthesiology Assistant (pending approval) (p. 197)
Biomedical Sciences (p. 130)
Cardiovascular Perfusion (p. 198)
Medical Laboratory Sciences with concentrations in Biomedical Sciences, Microbiology and
Laboratory Management (p. 199)
Pathologists' Assistant (p. 201)
Physician Assistant (p. 134, 203)
Radiologist Assistant (p. 205)

## Master of Laws in Health Law (LLM)

Admission is through the School of Law. The law school has its own academic catalog and student services handbook, to which readers should refer for information about School of Law policies, procedures and requirements for academic and other matters.

## Master of Science (MS)

Information Technology (online) (p. 182)
Interactive Media (on campus and online) (p. 185) Journalism (p. 186)
Molecular and Cell Biology (p. 175)
Organizational Leadership (online) (p. 183)
Public Relations (p. 187)
Also:
Combined BS in Athletic Training and Doctor of Physical Therapy (p. 143)

Combined BS/MS in Biology and Molecular and
Cell Biology (pp. 57, 61, 176)
Combined BS/MS in Information Technology (p. 182)

Doctor of Nursing Practice (p. 209)
Adult-Gerontology Nurse Practitioner (post-bachelor's)
Family Nurse Practitioner (post-bachelor's)
Care of Populations (post-MSN)

## Post-Professional Master of Science in Occupational Therapy

Occupational Therapy (p. 206)

## Entry-Level Master of

Occupational Therapy (MOT) (p. 139)
This $51 / 2$-year degree program is the only track for entry-level occupational therapy students, and begins at the undergraduate level (for freshmen and transfer students). As part of the program, students first earn a bachelor's degree in health and science studies.

## Entry-Level Doctor of <br> Physical Therapy (DPT) (p. 144)

This six- or seven-year degree program is the only track for new physical therapy students and begins in the undergraduate freshman year. As part of the program, students first earn a bachelor's degree in health and science studies.

## Entry-Level Master's <br> Physician Assistant Program (pp. 134, 203)

This six-year degree program is designed for qualified students who enter as freshmen earning a bachelor's degree in health and science studies. After successful completion of the undergraduate curriculum, students enter the graduate physician assistant program.

## Juris Doctor (JD)

Quinnipiac University School of Law offers a three-year, full-time day and a four-year, part-time evening program. Admission is through the School of Law. The School of Law has its own academic catalog and student services handbook, to which readers should refer for information about School of Law policies, procedures and requirements for academic and other matters.

## Certificate Programs

Advanced Graduate Study in Occupational
Therapy (post-professional) (p. 207)
Export Marketing (p. 162)
Health Care Compliance (p. 184)
International Purchasing (p. 162)
Long-term Care Administration (p. 184)

## Essential Undergraduate Learning Proficiencies for the 21st Century

Students come to Quinnipiac University eager to develop the knowledge, skills and mindsets that lead to meaningful, satisfying career success. Recognizing the ongoing changes in the world around us, Quinnipiac University supports and broadens these individual aspirations through a rigorous educational experience. Students acquire important skills valued by employers, along with the aptitudes to creatively and responsibly solve problems and use technologies, including those not yet known or invented. We expect our students to become intentional learners who embody confidence and integrity, and who will emerge as informed leaders in their professions, in their communities and in their roles as global citizens in the 21st century.

Deep, disciplinary knowledge lies at the core of a Quinnipiac University education, complemented by a University commitment to prepare students for adaptability, achievement and leadership in a dynamic, unpredictable world. Through a balanced curriculum, Quinnipiac University students examine the forces that have shaped and continue to shape our world, and use this information to integrate their specific interests into the broader context of the local, national and global community. Quinnipiac University graduates are able to consciously and decisively demonstrate a number of key proficiencies essential to the life and practice of a responsible, educated citizen. Graduates acquire these proficiencies through a purposeful integration of the University Curriculum, requirements within one's major, and experiences beyond the classroom.

## Interpersonal Proficiencies

- Written and oral communication-An ability to think critically, clearly and creatively in both
written and oral expression in their areas of interest and expertise.
- Responsible citizenship-An ability to recognize, analyze and influence decisions and actions at the local, national and global community, and to engage as responsible citizens.
- Diversity awareness and sensitivity-An understanding of and respect for the similarities and differences among human communities. This includes a recognition and appreciation for the unique talents and contributions of all individuals.
- Social intelligence-An ability to work effectively with others, to understand and manage interactions, and to act ethically, constructively, and responsibly to achieve individual and common goals.


## Intellectual Proficiencies

- Critical thinking and reasoning-An ability to recognize problems, and to acquire, assess and synthesize information in order to derive creative and appropriate solutions.
- Scientific literacy-An ability to understand and apply scientific knowledge in order to pose and evaluate arguments based on evidence and to make decisions and express positions that are scientifically and technologically informed. A scientifically literate person is able to evaluate the quality of scientific information on the basis of its source and the methods used to generate it.
- Quantitative reasoning-An ability to represent mathematical information symbolically, visually, numerically and verbally, and to interpret mathematical models such as graphs, tables and schematics in order to draw inferences. Also, an ability to use arithmetical, algebraic, geometric and statistical methods to solve problems.
- Information fluency-An ability to find and critically evaluate information from various media, to analyze it, and communicate outcomes in the process of solving problems in a changing and complex world. Also, an ability to use information and computer literacy skills to manage projects and conduct rigorous inquiry.
- Creative thinking and visual literacy-An ability to imagine, create and communicate fresh ideas and approaches that connect to and expand upon knowledge through an understanding of and appreciation for the visual, literary and performance arts.

Quinnipiac undergraduates are provided with a variety of opportunities to personally develop the essential learning proficiencies. These include participation in a vibrant intellectual community, the QU seminar series, the University Curriculum as well as the curricular requirements of their school/college and major-all described in this catalog. Additional learning comes from participation in University activities, student organizations and service opportunities, which are described in the Student Handbook.

## A Vibrant Intellectual Community

Quinnipiac University students participate in a vibrant intellectual community that extends beyond the classroom and emphasizes experiences that foster exposure to new ideas and spirited but civil discussion of controversial issues, undergraduate student research and creativity.

The University sponsors lectures and small group meetings with a variety of distinguished and accomplished leaders. Speakers in the past several years have included a former president of the United States, Nobel Prize winners, awardwinning authors, national media personalities and political candidates. Students and faculty plan, select specific topics, and participate in the University's common discussion theme program, Campus Cross-Talk. During their four years of undergraduate study, students explore and debate issues in each of four recurring themes: sustenance, well-being, security and meaning.

Each school and college of the University and the Office of Academic Affairs support undergraduate research opportunities. In undergraduate research projects, students work closely with a faculty mentor to develop and apply the skills and knowledge needed to conduct independent and original research. The University celebrates the results of undergraduate research projects through campus events and awards. Students often are awarded grants to conduct their research or present their results at sites around the nation and the globe.

Student creativity is fostered in a variety of ways. Our theater program has an extensive community involvement element that includes students from many different majors. "Studio work" is encouraged in the College of Arts and Sciences, while student films are produced by
students who major or minor in the School of Communications. Student photography, art and poetry are featured in the University's studentedited literary magazine, Montage, which sponsors a yearly Creativity Fair. Teams of Quinnipiac students compete against students from other universities in intercollegiate competitions where creativity is valued. Examples of competitions include the Students in Free Enterprise and the Society of Professional Journalists competitions.

## QU Seminar Series

Our innovative QU seminar series is the signature component of a Quinnipiac undergraduate education. This series of three connected courses nurtures in students an attitude of intentional learning that they can apply to all of their classes at Quinnipiac. Through close student-faculty interaction, lively class discussion and high intellectual expectations, students develop a number of the essential learning proficiencies, such as oral and written communication, critical thinking and reasoning necessary for success in their majors and in their professional lives. The three seminars prepare students to understand their roles and responsibilities as members of the Quinnipiac community, the national community and the global community.

All first-year students, entering the fall semester, enroll in QU 101, The Individual and the Community. In this discussion seminar, students examine perennial questions of identity, diversity, individuality, and civic responsibility. QU 101 also prepares new students to recognize and meet the academic expectations of a challenging university experience.

The second-level seminar course, QU 201, explores questions of identity and community in a national context. Students select from a wide variety of sections offered each year. Recent sections include Digital Community/National Identity, The ESPNization of America, Beyond the Bionic Man and Pledging Allegiance.

The third-level seminar course, QU 301, focuses on questions of identity and community in a global context. Students select from a wide variety of sections offered each year. Recent sections include New Security Challenges, Beyond Human Rights, Journey Out of Apartheid and Meanings of Freedom. Each year several sections of QU 301 are offered that include a study abroad component.

Students are strongly encouraged to choose a

QU 201 and QU 301 section outside the area of their intended major. Each seminar course builds on the previous experiences through linked readings, research projects and outside-the-classroom experiences that strengthen the QU seminar series' ability to create an environment of learning excellence and curricular cohesion.

The new QU Seminars Center is located within the Learning Commons in Tator Hall. Students use this space to meet with their instructor and collaborate with fellow students.

## University Curriculum

The requirements of the University Curriculum assure that all students receive a broad education that exposes them to different perspectives and ways of knowing, producing lifelong learners who can, upon graduation, become leaders in their professions, in the communities where they live, and in their role as informed citizens. The University Curriculum also contributes significantly to the development of the Essential Learning Proficiencies for the 21st Century that are expected for graduates of Quinnipiac University. The University Curriculum consists of 46 credits as outlined in the following curriculum structure.

University Seminars (9 credits)<br>QU 101 The Individual in the Community<br>QU 201 Seminar on National Community<br>QU 301 Seminar on Global Community

## Freshman Composition (6 credits) <br> EN 101-102 Elements of Composition I, II

## Quantitative Literacy ( 3 credits)

A mathematics course-MA 110 (Contemporary Mathematics) or higher.

## Breadth Requirement

The well-educated Quinnipiac graduate is one who has learned to read with critical curiosity, who is able to weigh contrasting evidence and arguments, and who can seek common ground in the midst of competing and polarizing points of view. In addition to writing and speaking with passion, understanding and prescience in a survey of diverse findings across multiple discourses, the Quinnipiac graduate is familiar with the artistic and aesthetic
legacies of humankind. Thus, the successful Quinnipiac graduate is one who can revise and refine his or her judgment, considering the range of intellectual, aesthetic, ethical and civic responsibilities.

## Courses in the Sciences

## (7 credits, including one lab)

Courses offered in this category afford the student the opportunity to develop his/her knowledge in the context of a discipline that integrates the process of science, including experimental design, hypothesis testing, appropriately analyzing scientific data, and comprehending the development and significance of scientific theories.

The scientific tradition requires the completion of two courses (minimum of 7 credits). A student must complete a 4 -credit course in the natural sciences (biology, chemistry, physics, etc.) that includes a laboratory component. The other course is a 3- or 4-credit course that embodies the investigative experience.

Because of substantial duplication of course content, the following course pairs may not be taken in combination to complete the 7 credits required for the UC science requirement.
PHY 101/101L and SCI 101/101L
SCI 105/105L and SCI 161
BMS 118/118L and BMS 162
BIO 106/106L and BIO 161

## Courses in the Social Sciences ( 6 credits)

Courses that satisfy the distribution requirement for the social sciences are dedicated to exploring and critically analyzing social, economic and behavioral organization, the complexity of individual behavior and the interaction between the individual and society. Students are able to demonstrate the skills of critical inquiry appropriate to the discipline offering the course, including quantitative and qualitative methods of analysis.

## Courses in the Humanities ( $\mathbf{6}$ credits)

Courses in the humanities focus their inquiry on exploring what it means to be human through an examination of our ideas, values, ideals and experiences. They generally explore these human constructs and concerns through the intensive study of written texts and other objects that reflect human beings' efforts to create meaning in their lives. Humanities courses that satisfy the distribution requirement are dedicated to a broad exploration
and intensive examination of the human experience. These courses provide students with the analytic skills necessary for active inquiry into existing sources of knowledge while engaging them in new ideas and developments in the respective discipline. Fundamental areas of the humanities include the study of history, literature, philosophy and law.

## Courses in the Fine Arts ( 3 credits)

Courses that satisfy the distribution requirement for the fine arts examine the visual or performing arts, helping students understand the creativity of human beings through the ages. Fulfillment of the requirement enables students to appreciate the arts and have knowledge of their modes and history. Students also develop a critical, aesthetic and creative intelligence essential to the educated citizen.

## University Curriculum Electives (6 credits)

 Students take 6 credits of UC courses outside the major. Students continue to explore a variety of fields outside their major area of study by selecting additional courses in the sciences, the humanities, the social sciences and the fine arts. These courses enable students to weigh contrasting evidence and carefully examine arguments to arrive at a considered judgment. Consistent with the University's commitment to writing across the curriculum, this distribution offers students diverse opportunities to read, write and speak with informed intelligence. Above all, these courses challenge students to refine their sensibility and critical acumen to meet the challenges of a complex and ever-changing world.
## Policy for Students Who Fail QU 101

Freshmen entering the University in the fall semester who withdraw from or fail to receive a passing grade for QU 101 during that semester are given one chance to repeat the course during the first spring semester that they are enrolled at Quinnipiac. If they fail to complete the course successfully on a second attempt, they may not take QU 101 again. They may not withdraw from the course on the second attempt. The failing student receives no credit for QU 101, the failing grade ( F ) remains and he/she must substitute 3 credits from any other UC-designated course to count toward required general education credits. A variant procedure form allows the student to proceed to QU 201.

## QU 101 Policy for Transfer Students:

A student who transfers to Quinnipiac with less than sophomore standing (fewer than 27 credits) shall enroll in a special section of QU 101, to be offered during the Spring semester. Students who transfer to Quinnipiac with sophomore standing or higher must substitute any UC-designated course for QU 101, to count toward the general education credits needed to graduate. The QU 101 prerequisite is waived for the transfer student to enter a section of QU 201.

## University Honors Program

The University Honors Program has been developed to foster the needs and interests of our most academically talented and committed students. The program is founded on the University's three core values-high-quality academic programs, a student-oriented environment and a strong sense of community.

Honors students participate in small seminar courses with instructors dedicated to working cooperatively to mold a unique learning environment. This student-centered approach supports increasingly independent learning and also engages students in the larger campus as well as regional, national and world communities.

Honors students are encouraged to actively participate in and contribute to campus culture through lectures, book discussions and unique events that enhance the distinctive learning opportunities available in the University environment. Quinnipiac honors students have access to a special space on campus-the honors student lounge, which includes a small collection of books, informal seating, coffee and a kitchen that facilitates studying, conversation and honors committee meetings. In addition, honors students have the opportunity for off-campus learning experiences in nearby areas such as Boston, New Haven and New York City in addition to learning about the culture and history of Connecticut.

Honors students take a minimum of 21 credits designated at the honors level as part of their existing University Curriculum or major courses; the program does not add additional credit requirements to the students' major work, and preserves freedom to pursue electives and minors.

Typically students are considered for the University Honors Program as part of their
application for admission as freshmen. Students are notified of their selection in early February and are asked to respond by May 1 to indicate their interest in participating. Students who enter Quinnipiac but who were not offered participation in the program may apply internally based on their academic record at Quinnipiac and space availability in the program.

## Writing Across the Curriculum

Since 2000, Quinnipiac University has adopted a writing-across-the-curriculum (WAC) approach to teaching writing at the undergraduate level, an effort that has been generously supported by the Davis Educational Foundation. Writing is used extensively throughout the University Curriculum and in all the undergraduate majors to promote good critical thinking and communication skills for all students.

The WAC committee now hosts a biennial conference on Critical Thinking and Writing Across the Curriculum (begun in Fall 2006).

The University endorses the position recently taken by the National Commission of Writing For America's Families, Schools and Colleges that good writing is a "threshold skill" for employment virtually anywhere in the professions. The aim is to ensure that students are prepared to succeed in whatever profession they choose.

## Academic Integrity

In its mission statement, Quinnipiac University emphasizes its commitment to the academic community. As an academic community, our students, faculty and staff work together to acquire and extend knowledge, develop skills and competencies, and serve the greater good of our nation and local communities. Our individual and collective inquiry and pursuit of knowledge are only possible when each of us in the community is aware of and strives to maintain a code of ethical practice and integrity. All communities, though diverse in their individual members, are based on a shared set of beliefs and values that serve as their foundation. At Quinnipiac, our community has chosen integrity as one of its guiding principles.

Integrity means upholding a code or standard of values. In its most general sense, integrity also
means being complete. As an academic community, the completeness that we seek includes asking each individual to see her or his life as a whole, and to understand how the actions he or she takes affect self, others and the community. Individual actions also affect the community of higher education as a whole. In keeping with this commitment to the Quinnipiac community and the larger community of higher learning, Quinnipiac is a member of the Center for Academic Integrity (CAI), a consortium of institutions of higher education committed to the principle of integrity. Our academic integrity policy is based on the five fundamental values outlined by the CAI: honesty, trust, responsibility, fairness and respect. More information on the University's academic integrity policy is available at www.quinnipiac.edu/x1046.xml.

## Requirements for Graduation

Degrees are awarded three times a year: January, May and October.

Commencement exercises are held in the spring. Students may participate in the ceremony provided that: 1) they are within 6-8 credits (two courses) of their degree; 2) they are enrolled in summer school; and 3) they have a minimum 2.0 quality point average. Though faculty advisers assist each student in the selection of courses, the responsibility for fulfilling the requirements of the program and all Quinnipiac University program and departmental academic requirements of study rests with the individual student.

## For the Bachelor's Degree

1. The satisfactory completion of at least 120 credits, of which the final 45 must be taken at Quinnipiac University. (Certain majors in the School of Business and in the School of Health Sciences require the completion of more than 120 credits; see specific departmental requirements.)
2. Completion of the University Curriculum common to all bachelor's degree programs.
3. The satisfactory completion of the specific course standards and requirements of a student's chosen major (see curriculum descriptions).
4. A grade point average of at least 2.0 , with at least that average maintained during the final 60 hours of study, and any other GPA requirements
imposed by the school, department or program.
5. School of Business students must complete a minimum of 50 percent of the business courses required for the degree at Quinnipiac (exclusive of 6 credits of economics).
6. Up to 6 credits of workshop courses and/or physical education courses may be applied toward the degree requirement.
7. Recommendation by the faculty.

## Majors

A student's major must be approved in advance by the department chair, and the student must follow the prescribed course of study leading to the completion of this major. At least one-half of the courses in a major must be taken at Quinnipiac University. The sequence of courses in this catalog represents the most common sequence taken by students and the sequence recommended by the department or program. Course sequences are not intended to be rigid: students who wish to alter them should obtain permission from their adviser or department chair.

## Dual Majors

A student may request to major in two areas of study in the same school or college. He or she must fulfill all department requirements in both areas, complete all school requirements in the school granting the degree and be recommended by the faculties of each major department. The student receives one diploma.

## Dual Degrees

A student may earn two undergraduate degrees in two separate schools provided (a) all requirements for each degree are completed successfully, and concurrently (b) all pertinent requirements of Quinnipiac and of the departments and schools involved are completed successfully, and (c) both degrees are conferred concurrently.

## Second Degree

A second bachelor's degree may be earned, provided a minimum of 45 additional credits in
residence have been earned, and all requirements have been satisfied.

## Minors

The purpose of a minor is to provide students with the opportunity to pursue an interest in a field outside of their major. Minors generally consist of six courses within a discipline or set of related disciplines with a progression of course levels. If a minor requires additional prerequisite courses, these courses are clearly indicated in the description of the minor within the University Catalog.

A student may earn a minor in an area of study concurrently with the major degree but not subsequently. Normally credits counted toward the requirements of the major may not be used to meet the requirements of a minor. Each individual school/college may have additional policies on meeting minor requirements, which are listed in the University Catalog. Completed minors are noted on student transcripts.

The University is committed to allowing all students the opportunity to complete a minor. However, this is dependent on early declaration of a minor and flexibility, including the necessity to take additional courses beyond degree requirements. To ensure sufficient time to complete a minor, students should submit an application to declare a desired minor prior to the end of their sophomore year.

To have a minor appear on their transcript, students should apply to declare a minor prior to their senior year. Applications to declare a minor may be obtained in the dean's office of the school/college offering the minor, which will refer the student to the designated adviser for the minor. The adviser will indicate on the application for the student the number of semester hours and the specific courses required. At least one-half of the credits needed for a minor must be taken at Quinnipiac. Under special circumstances a dean, with the permission of Academic Affairs, may suspend the admission of new students into a minor for an academic year.

The following is a list of approved minors:
Accounting (p. 96)
Anthropology (p. 81)
Asian Studies (p. 86)
Biology (p. 61)
Biomedical Sciences (p. 129)
Business (p. 94)

## Chemistry (p. 64)

Computer Information Systems (p. 98)
Computer Information Systems for
Communications Students (p. 98)
Computer Science (p. 72)
Criminal Justice (p. 81)
Dispute Resolution (p. 69)
Economics (p. 99)
English (p. 67)
Entrepreneurship and Small Business Management (p. 104)

Environmental Science (p. 62)
Finance (p. 106)
Fine Arts (p. 85)
French (p. 74)
Game Design and Development (p. 85)
Gerontology (p. 81)
History (p. 68)
Interactive Digital Design (p. 85)
International Business (p. 108)
International Studies (p. 86)
Journalism (p. 119)
Management (p. 109)
Marketing (p. 110)
Mathematics (p. 72)
Media Studies (p. 120)
Microbiology/Molecular Biology (p. 133)
Middle Eastern Studies (p. 87)
Music (p. 85)
Philosophy (p. 76)
Political Science (p. 76)
Psychology (p. 79)
Public Relations (p. 120)
Science and Values (p. 88)
Scriptwriting (p. 118)
Sociology (p. 81)
Spanish (p. 74)
Sports Studies (p. 88)
Studies in the Law (p. 70)
Theater (p. 86)
Theater Design and Production (p. 86)
Women's Studies (p. 89)

## Service Learning Courses

Course offerings designated SL in the catalog indicate classes or sections of classes that integrate meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities.

The SL designation helps faculty advisers and students identify service learning courses to plan and prepare for registration. Quinnipiac University is a member of Connecticut Campus Compact. Campus Compact is a national coalition of college and university presidents dedicated to promoting community service, civic engagement and servicelearning in higher education.

Service learning is not volunteerism; nor is it an internship. Service learning is a curriculum-based initiative bringing together faculty, students and community organizations. Service Learning courses incorporate the following basic principles:

- Engagement is fostered through service projects with a community partner.
- Reflection on the experience of working on the community project is both an academic and personal process.
- Reciprocity is promoted by addressing real community needs.
- Dissemination means that previous courses serve as models of best practices for new courses.
The purpose is to assist community organizations by providing situation-specific student resources in activities consistent with the goals of a specific course. Through Service Learning, community organizations are more able to meet their objectives, faculty are more able to demonstrate key course concepts, and students are more able to relate course theory with actual situations and practices. For details, see the website (www.quinnipiac.edu/x179.xml).


## Service Learning Certificate

Interested students who meet the requirements are eligible to receive a certificate from the Committee for Service and Service Learning. This certificate reflects the commitment the student has made to experiential and service learning techniques and opportunities in designated service learning courses. To earn a Service Learning Certificate, students must successfully complete (with a grade of C or better) three or more service learning (SL) designated courses at Quinnipiac. An application form, which contains a list of eligible service learning designated courses and instructions can be downloaded from the Service Learning web page. The Course Schedule and Registration Bulletin also lists the service learning courses that are offered in each semester. The SL designation helps
faculty advisers and students identify service learning courses to plan and prepare for registration. Each student who applies and completes the requirements of a Service Learning Certificate receives their certificate at an end-of-the-year celebration, and is invited to service learning events during the school year. For details, see the website (www.quinnipiac.edu/x179.xml).

## Grading System

Achievement in a particular course is indicated by a letter grade that is translated into grade points for the student's record. Final grades are issued by the registrar at the close of each semester. Midsemester standings are issued to first-year students in 100-level courses, apprising them of their progress.

Grade points earned in a course are determined by multiplying the point value of the letter grade (shown in the table below) by the number of credits of the course. A cumulative average is obtained by dividing the total number of grade points by the total number of credits taken at Quinnipiac.

## Scale of Grades

| Letter Grade | Numerical Range | Grade Pt. Value |
| :---: | :---: | :---: |
| A | 93-100 | 4.00 |
| A - | 90-92 | 3.67 |
| B + | 87-89 | 3.33 |
| B | 83-86 | 3.00 |
| B - | 80-82 | 2.67 |
| C + | 77-79 | 2.33 |
| C | 73-76 | 2.00 |
| C- | 70-72 | 1.67 |
| D | 60-69 | 1.00 |
| F | 0-59 | 0.00 |
| ${ }^{*}$ I (incomplete) P (pass) **W (withdrawal) S (satisfactory) Z (audit) U (unsatisfactory) |  |  |
| *Incomplete means the student has not completed all work required in a course. A period of time is allotted to make up the work. An incomplete grade automatically becomes a failing grade if it is not removed within that period. The period normally cannot extend more than 30 days after the start of the next full semester. In exceptional cases, an extension may be made with the written approval of the department chair (up to one year) or the appropriate dean (any longer period). |  |  |
| **A student may withdraw from a course offered in a traditional semester ( 15 week) format up to the end of the 10th week of classes. For courses offered during the summer or in accelerated or other non-traditional formats, the withdrawal |  |  |

period extends up to the completion of 60 percent of the scheduled class sessions. Prior to the start of each semester the specific withdrawal deadlines for all classes are published by the Office of the Registrar.
Withdrawals must be recorded on an official form available in the registrar's office.
P indicates "passed with credit" when no letter grade is given.
Z indicates the course was audited.
S indicates "passed with no credit."
U indicates "unsatisfactory work."

## Academic Good Standing Policy

## Math and English Requirements

Full-time students are expected to have completed EN 101, EN 102 and MA 110 (or their equivalent) by the end of three semesters. Part-time students are expected to have met these requirements by the time they have completed 30 credits. Students may not withdraw from EN 101 or EN 101 Intensive. The first time a student fails to complete EN 101 or EN 101 Intensive successfully, a grade of "U" is issued. Each additional unsuccessful attempt at EN 101 or EN 101 Intensive results in a grade of "F."

## Credit and GPA Requirements

To be in academic good standing at Quinnipiac, undergraduate students must meet both minimum grade point average and completed credit requirements. A student fails to meet academic good standing requirements if his or her: a) semester GPA falls below 2.0 in any semester or, b) cumulative GPA is below 2.0. Students admitted before the 2011-12 academic year will be held to the standards in place during their admission. In addition to the GPA requirements, all students must complete course work over a period no longer than 150 percent of their program length to maintain the satisfactory academic progress standards of the University. For example, a full-time student enrolled in a four-year degree program must successfully complete an average of 10 credits per semester registered. A part-time student must complete an average of 6 credits per semester registered. Some individual degree programs have higher GPA and credit requirements for students to maintain program eligibility. Consequently, students should consult the program description in this catalog for the requirements of their individual program. Students should also know that failure to meet the academic good standing requirements may result in the loss of financial aid.

## Sanctions

Any student who fails to achieve any of the requirements above is subject to one of the following sanctions:

## Probation

Probation serves as an official warning of deficiency that requires students to promptly address their deficiency(s). Prior to the start of each semester, academic advisers are provided with a list of their advisees who are on academic probation along with a Guide on the special advising needs of students on probation. Before the end of the first week of classes, students on probation must submit an electronic copy of their Improvement Plan to their academic adviser and the Learning Center. In the Improvement Plan, they should reflect on their past semester, and indicate how they will improve their academic performance to remedy their academic deficiencies. Probationary students must meet with their adviser within the first two weeks of the next semester to have the adviser approve or amend the plan. Approved plans are forwarded to both their school/college dean's office and the Learning Center. Probationary students must meet personally with their adviser a second time during preregistration to discuss their progress in meeting the goals of their Improvement Plan and their course selection for the next semester. Additionally, probationary students must email their adviser with a progress update every two weeks during their semester on probation.

The Learning Center has a variety of programs to support students on probation. Students on probation may register for courses in the usual fashion. However, students on probation who have completed 30 or fewer credits must attend and successfully complete an Advanced Learning Seminar. This seminar provides students support and strategies to assist them in correcting their deficiencies. Normally, students are not permitted to appeal probationary status. However, students who failed to achieve the completed credits requirement for documented medical reasons may appeal a probation decision.

## Suspension

Students who have serious or repeated deficiencies are subject to suspension. Suspended students must leave Quinnipiac for a period of one semester. Suspended students are encouraged to use the period of
suspension to improve their academic skills. However, credit will not be given for summer courses or courses taken elsewhere during the suspension period. Suspended students are readmitted to Quinnipiac after the completion of the suspension period.

## Dismissal

Students with serious or repeated academic deficiencies are subject to dismissal from Quinnipiac. After a period of at least one year, dismissed students who have demonstrated academic achievement elsewhere may file a new application for admission to Quinnipiac.

## Procedures

Decisions regarding probation, suspension and dismissal are made by the Academic Deficiency Review Committee (Deficiency Committee). The Deficiency Committee is composed of four faculty members (appointed by the deans of the academic schools) and the registrar, who serves on an exofficio basis. Normally students are put on probation after their first deficient semester. Individual students may be continued on probation for subsequent semesters if they make progress in addressing their deficiency(ies). However, students who are deficient after a total of three semesters on probation, or two semesters after the freshman year, are suspended or dismissed. Any student who has a GPA below 1.2 after two semesters is dismissed.

Suspended and dismissed students may appeal their sanction to the Academic Appeals Committee, consisting of a representative of Academic Affairs, school deans and two students appointed by the student government president. The Appeals Committee may change a suspension or a dismissal to a lesser sanction. All notifications of decisions and meeting times of the Deficiency and Appeals committees are sent to the permanent address of affected students by Federal Express or first class mail (probation notices only). It is the responsibility of students to be sure they can be contacted and, if necessary, respond promptly to committee notices.

## Course and Credit Requirements

Each course is measured in credits. Each credit normally requires satisfactory completion of a 50minute class period, or its equivalent, per week for a
semester. The usual load is five courses. A student with a superior academic record may secure permission to take more than the normal course load. Conversely, a student who enters with deficiencies may be allowed to take only three or four courses.

Regular class attendance is expected. A student whose attendance is unsatisfactory may be forced to withdraw from a course at the discretion of the instructor and consistent with Quinnipiac's withdrawal policy.

So far as is practicable, final examinations are regarded as part of the regular work for undergraduate courses.

In courses for which a final examination would serve no useful purpose, a term essay or personal conference, problem-solving exercise, or other assignment may be substituted; work on the substitute exercise may take place during the final examination period.

Faculty members may exempt from the final examination students whose work is of high quality. Conditions governing exemptions are determined by the faculty of the school concerned.

## Repeat of Courses with Grade of F, D or C-

A student who fails a required course must repeat that course. When the student earns a passing grade for the failed course, that grade and those credits are calculated in the student's cumulative average. The student's transcript will continue to display the failed course as part of the student's complete academic record. A student who fails an elective course may repeat that course to earn a passing grade. The passing grade and credits become part of the student's cumulative GPA; the record of the failing grade remains on the transcript.

Though the D grade normally is a passing grade, it is the prerogative of each department to set higher grade requirements in certain major courses. When such departmental requirements exist, students are so informed by their respective departments.

Courses with C - or D grades may be repeated only if the course is a foundation for further study or meets a specific graduation requirement. If a C or D grade is repeated, no credits are added, but the most recent grade in the course applies.

## Procedure to Appeal a Final Grade

Faculty members are the most appropriate judges of how students perform academically. Therefore, this appeal process applies only in cases in which a student believes her/his final grade was determined in an arbitrary, capricious or prejudicial manner. In such a situation, the student must first try to resolve the matter with the faculty member assigning the grade. If the matter cannot be resolved, the student should contact the chairperson of the department offering the course. If, after consulting with the student and faculty member, the chairperson is unable to mediate a mutually agreeable resolution, the student then contacts the associate dean of the division/school/ college offering the course. If after consulting with the student, faculty member and chairperson, the associate dean is unable to mediate a mutually agreeable resolution, the student can request the formation of an appeal committee.

The request for an appeal committee must be in writing and include a description of why the student believes her/his final grade was determined in an arbitrary, capricious or prejudicial manner, and all relevant evidence (e.g., course syllabus, exams, projects, etc.). The associate dean will appoint a three-member faculty committee composed of two from within the department offering the course and a full-time faculty member of the student's choosing. In the absence of a student preference, the associate dean will appoint the third faculty member from another department within the college or school. If the associate dean is unable to appoint two faculty members from within the department, he/she will appoint two or more faculty members from outside the department, with the student having the option of choosing one full-time faculty member. The faculty member assigning the grade and the chairperson may not participate in this decision process.

After consulting with the student and faculty member, and reviewing the evidence, the appeal committee will forward to the associate dean a written final determination that either allows the grade to stand or requires the faculty member to recalculate the grade, with chairperson oversight. After the faculty member submits the recalculated grade, the chairperson will document the nature and date of any changes and forward the documentation
to the associate dean. The associate dean will notify the faculty member, department chair and student of the final resolution.

The student must submit her/his written request for an appeal committee to the associate dean within 45 calendar days from the start of the semester following the semester for which the grade was given. It is expected that within the 45day period, the student, faculty member, department chairperson and associate dean will work cooperatively to resolve the matter. If the chairperson is the faculty member who assigned the grade, the student will contact the associate dean after failing to resolve the matter with the faculty member. If the faculty member who assigned the final grade is unavailable during the semester following the semester for which the grade was assigned, the above process begins with the chairperson. The appeal process will be completed by the end of the semester within which it is initiated. Only final grades may be appealed.

## Permission to Study at Another Institution

Quinnipiac University is committed to having its students take courses that best fit their required curricula at the appropriate academic level. Once undergraduate students have matriculated at Quinnipiac, they normally are not allowed to take courses for credit elsewhere. If there is a compelling reason, the University will accept up to two courses from other institutions for transfer credit, assuming grades of "C" or better. To receive credit, the course must be preapproved by the appropriate dean based on an official course description provided by the student. Ordinarily, permission to take a summer or intersession course elsewhere is not given if a) the course if offered during the same period by QU Online, or b) if the course is offered during the same period on the Quinnipiac campus and the student is residing in the State of Connecticut. If either of these two requirements is inappropriate for an individual student, he/she may petition for an exception from the dean through the University's Variant Procedure process. Once a student has completed (or transferred) a total of 48 credits, he/she will not be permitted to take a course at a junior or community college offering two-year terminal degrees. Students must take
their final 45 credits at Quinnipiac. Students who study abroad during the summer or winter intercession are exempt from the two-course limit.

Quinnipiac University has different policies that apply to courses taken elsewhere through its approved Study Abroad and Washington Semester programs (see pp. 41-43, 47).

## Leaves of Absence

Leaves of absence may be arranged for one or two semesters through the registrar, subject to departmental and school approval. At the conclusion of the leave of absence, the student receives automatic readmission to the University. The granting of a leave of absence guarantees readmission to the major in which the student is enrolled when applying for a leave and permits the student to graduate by complying with the degree program requirements in effect when the leave is taken, provided that the courses are still offered. If requirements for graduation are changed after a student is first admitted to Quinnipiac, the student can choose to follow either the former or the new requirements. During the leave of absence, Quinnipiac retains the student's deposit until completion or withdrawal.

If a student takes a leave of absence and later is suspended, dismissed, placed on warning for unsatisfactory academic performance (including academic integrity sanctions), or suspended or expelled as the result of a judicial decision, the sanctions take precedence over the leave of absence and stand as a matter of record. Any academic warning becomes operative at the time of return to the University. A mandatory medical leave of absence takes precedence over a voluntary leave of absence and the student must comply with the terms of the medical leave.

Leaves of absence are not granted for the purpose of allowing a student to study at another university. In general, courses taken at another institution while a student is on a leave of absence will not be transferred in for credit at Quinnipiac.

Students who do not return after the specified leave of absence period will be administratively withdrawn and will be required to reapply for admission in order to return to the University. In such instances there is no guarantee of readmission.

## Military Leaves

Students in the military reserves who are enrolled when they are called to active duty, are offered the following options:

1. Withdrawing from courses with a full tuition refund or tuition credit, in accordance with institutional and federal government guidelines.
2. If a student has completed at least 50 percent of the course work and upon recommendation of his/her dean, the student may elect to take incompletes and make special arrangement for course completion with individual instructors.
Students needing to take a military leave should contact the Office of Academic Affairs.

Students are eligible to return within one year following active duty. However, the degree requirements may have changed, and they may be required to comply with degree program requirements in effect at the time of their return to the University.

## Withdrawal from the University

Students considering withdrawal from the University should meet with their academic adviser or department chair to explore the available alternatives. If withdrawal is a student's final decision, he/she should meet with the dean of his or her school.

Honorable release is granted when all financial obligations to Quinnipiac University have been met. The refund policy is available in the bursar's office.

A student receiving aid for education for the Veterans Administration must consult with the registrar and comply with Veterans Administration regulations. A student holding a Stafford Loan or Nursing Student Loan must have an interview in the financial aid office to ensure a clear understanding of repayment obligations. For details, see www.quinnipiac.edu/services/bursar/asp.

If a student plans to withdraw and later is suspended, dismissed, placed on warning for unsatisfactory academic performance (including academic integrity sanctions), or suspended or expelled as the result of a judicial decision, the sanctions take precedence over the withdrawal and stand as a matter of record. Any academic warning becomes operative in the event that the student is readmitted to the University.

## Administrative Withdrawal

Students are administratively withdrawn by the University if they have not registered for classes by the end of the drop/add period of any semester, if they have not returned to the University when the approved period of leave of absence has expired, or if they have not returned at the time specified after academic or disciplinary suspension and the period of suspension has not been extended.

Students who have been administratively withdrawn from the University must reapply for readmission. Readmission to the University is not guaranteed. A student who is granted readmission to the University may not be guaranteed readmission to the major in which he or she was enrolled at the time of administrative withdrawal. All students who are readmitted after an administrative withdrawal must comply with degree program requirements in effect at the time of readmission.

## Readmission

Students who are not on an official leave of absence and who wish to return to Quinnipiac University must apply for readmission through the admissions office. Any student who has been away from the University for two full semesters must reapply for admission. Official transcripts of any colleges attended while the student has been away from Quinnipiac must be provided. The admissions office, the academic affairs office and the dean of student's office will determine the student's eligibility for readmission.

A student who is granted readmission to the University may not be guaranteed readmission to the major in which he or she was enrolled at the time of administrative withdrawal. All students who are readmitted after an administrative withdrawal must comply with degree program requirements in effect at the time of readmission.

## Medical Leaves

## Medical Leave of Absence

Students who wish to leave the University during an academic term because of physical or psychiatric conditions that necessitate their absence may
request a medical leave of absence. Documentation of the serious nature of the medical condition must be provided to the associate dean of student affairs who will review that documentation with the University medical director. A leave of absence may be arranged for one or two semesters. Under special circumstances, the medical leave of absence may be extended. The student may return to classes when medical clearance, provided by a private physician, is reviewed by the University medical director and accepted by the associate dean of student affairs.

## Mandatory Medical Leave of Absence

The University reserves the right to place a student on a mandatory medical leave of absence from the Quinnipiac community for physical or psychiatric reasons.

In the case of a physical problem, the associate dean of student affairs, in consultation with the University medical director, determines the appropriateness of a mandatory medical leave of absence. Parents, legal guardians or the emergency contact of the student are notified and arrangements are made immediately to remove the student from campus. Before returning to Quinnipiac from a mandatory medical leave of absence, the student is expected to release all relevant medical information to the University medical director. After reviewing the information, the University medical director and the associate dean of student affairs determine whether the student may return to the University or whether continuation of the mandatory medical leave of absence is warranted.

In the case of a psychiatric problem, the associate dean of student affairs, in consultation with the University psychiatrist, determines the appropriateness of a mandatory medical leave of absence when the student is perceived to be a threat to self or others; when the student is deemed to be unable to withstand the rigors of the college experience; or when the student's behavior is disruptive to the educational mission of the University. Parents, legal guardians or the emergency contact of the student are notified and arrangements are made immediately to remove the student from campus. The associate dean of student affairs makes this decision on a temporary basis pending results of an evaluation conducted by the University psychiatrist. After reviewing the evaluation results, the
associate dean of student affairs, in consultation with the University psychiatrist, determines whether the student may return to the University or whether continuation of mandatory medical leave of absence is warranted. Before returning to Quinnipiac from a psychiatric mandatory medical leave of absence, the student must undergo a psychiatric evaluation at his or her own expense with the University psychiatrist. The student is expected to release all relevant medical information to the evaluating physician. The results of this evaluation are submitted to the associate dean of student affairs, who, in consultation with the University psychiatrist, determines whether the student may return to the University.

Students may appeal this decision to return following a mandatory medical leave of absence for physical or psychological reasons to the vice president and dean of student affairs. All information submitted becomes part of the student's health record and remains confidential.

## Withdrawal from a Course

A student may withdraw from a course offered in a traditional semester (15-week) format up to the end of the 10 th week of classes. For courses offered during the summer or in accelerated or other non-traditional formats, the withdrawal period extends up to the completion of 60 percent of the scheduled class sessions.

## Student Records Policy

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. These rights include: 1. The right to inspect and review the student's educational records within 45 days of the day Quinnipiac University receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. A Quinnipiac official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Quinnipiac official to whom the request was submitted, that official shall advise the student of the correct official to
whom the request should be addressed.
2. The right to request the amendment of the student's education records that he or she believes are inaccurate, misleading or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the University to amend a record should write to the Quinnipiac official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If Quinnipiac decides not to amend the record as requested by the student, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment.
Additional information regarding the hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
3. The right to provide written consent before Quinnipiac discloses personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent.

One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by Quinnipiac University in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom Quinnipiac has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility. Upon request, Quinnipiac also discloses educational records without consent to officials of another school in which a student seeks or intends to enroll.

## Public Notice Designating Directory Information

 Quinnipiac University designates the following information as public or "Directory Information" under FERPA, that is, information that can be made available to the general public by Quinnipiac without the student's prior consent: NameAddress
Telephone number
Email address
Date and place of birth
Secondary school
Hometown or city at the time
School or college
Major field of study
Degree sought
Weight and height of athletic team members
Expected date of completion of degree
requirements and graduation
Degrees and awards received
Dates of attendance
Full- or part-time enrollment status
Previous educational agency application for admission filed or institution attended
Participation in officially recognized activities and sports
Name and address of parent or guardian
Photo images from ID cards
A student may refuse to permit the designation as "Directory Information" of any or all of the personally identifiable information listed above, except to school officials with legitimate educational interests and others as indicated. To do so, a student must make the request in writing to the Office of the Registrar by 5 p.m. on Friday of the first week of classes of the semester. Once filed, this request becomes a permanent part of the student's record until the student instructs Quinnipiac University, in writing, to have the request removed.
4. The right to file a complaint with the U.S.

Department of Education concerning alleged failures by Quinnipiac University to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:
Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5920

## Academic Outcomes Assessment

Academic outcomes assessment at Quinnipiac University is based on objectives identified by faculty and administrators for specific academic and support programs. The process employs a variety of measurements to discover, as accurately as possi-
ble, whether the programs are achieving the student learning outcomes in areas such as general education and major programs of study.

The purpose of academic outcomes assessment is to produce feedback to the department, school/ college or administrative unit on the performance of the curriculum, learning process and/or services, thereby allowing each unit to improve program offerings. This type of assessment is not for the purpose of evaluating performance of an individual student, faculty member or staff member.

Measurements may be drawn from surveys, course evaluations, placement tests and a variety of other standardized or locally developed tests. For example, required course assignments and examinations may be used first as a basis for course placement or for assigning grades to a student, and then later used again in an outcomes assessment for an academic or support program. In these cases, the outcomes assessment is conducted as a process separate from and without influence on the course placement or grading process for individual students.

Whenever academic performances are used in outcomes assessment, confidentiality of individual student identities is strictly maintained. Outcomes assessment results for academic and support programs do not disclose analyses at the level of the individual student without written permission from the student.

## Academic Honors

## Dean's List

Students who excel in scholarship by earning a grade point average of at least 3.5 with no grade lower than C are recognized by being placed on the dean's list. Full-time students must complete at least 14 credits in a semester, with at least 12 credits that have been graded on a letter grade basis (A through C) to be eligible. Part-time students must complete at least 6 credits during a semester.

## Degrees with Honors

Students who have demonstrated superior scholarship and who have attended Quinnipiac for at least 60 credits immediately prior to graduation are eligible to receive degrees with honors. Designation is based on grade point averages as follows:
Summa Cum Laude
3.90-4.00
Magna Cum Laude
3.70-3.89
Cum Laude
3.50-3.69

## Academic Awards and Honor Societies

## Advertising Department Student Achievement Award

This award is presented to a graduating student exhibiting outstanding scholarship, independent creativity and extracurricular activities directly related to advertising.

## Alumni Association Academic Achievement Awards

At graduation, the Alumni Association presents an award to the honors student from each of the undergraduate schools who has attained the highest scholastic standing and who has completed 90 credits at QU. These awards are made possible by the Alumni Association National Board of Governors.

## The Alumni Award for Holistic Nursing Practice

This award recognizes clinical excellence and exceptional potential in the discipline of nursing. It is presented to the senior nursing student who has demonstrated a strong commitment to the unity of body, mind, emotion and spirit in the delivery of health care. The award is supported by The Quinnipiac University Nursing Alumni Fund, which was established by the Class of 1998.

## The Alumni Chair Award

A chair is presented to the graduating senior who has done the most to foster student alumni relations at Quinnipiac. This award is made possible by the Alumni Association Board of Governors.

## Alpha Delta Sigma Society

The Alpha Delta Sigma Society is a national honor society recognizing scholastic achievement in advertising studies. It is sponsored by the American Advertising Federation to encourage scholarship among students of advertising.

## Alpha Kappa Delta

Alpha Kappa Delta is an international sociology honor society designed to stimulate scholarship and promote the scientific study of society.

## Alpha Lambda Beta

Alpha Lambda Beta is the University's chapter of Phi Alpha Theta, the national history honor society. Alpha Lambda Beta seeks to bring students, teachers and writers of history together for intellectual and social exchanges that promote historical understanding, research and publication.

## Alpha Mu Alpha

Sponsored by the American Marketing Association, this National Marketing Honorary Award is given to graduating seniors who are in the top 10 percent of the seniors in marketing.

## Alpha Psi Omega

Alpha Psi Omega, the largest national honor society in America, recognizes excellence in all areas of theater study and production. Membership is based on cumulative grade point average and achievement during the University main stage theater production season in the areas of performance, technical production and theater administration.

## Alpha Sigma Lambda

Alpha Sigma Lambda was the first and remains the only chapter-based honor society established to honor both full-time and part-time adult students who are pursuing their undergraduate degrees. Founded in 1946, the Alpha Sigma Lambda national honor society provides recognition to highly motivated adult students who are continuing their education while managing the responsibilities of work and family.

## Arias-Schweitzer Internship

The Arias-Schweitzer internship provides a graduating senior with the opportunity to work with the Arias Foundation for Peace and Human Progress in Costa Rica. The 12-month paid internship is made possible through the efforts of the Albert Schweitzer Institute. The foundation focuses on issues of demilitarization and human security, the promotion of grassroots support for democracy in Latin America, and issues of gender, development and human rights.

## Christopher Becker Memorial Prize in History

This award is given to the history major with the highest cumulative grade point average.

## Mitchell Berkun Prize in Psychology

Each year, the student majoring in psychology who has completed the Research Methods sequence (PS 206, $307,308)$ with the highest grades receives this award. It honors the individual who founded the psychology department founder.

## Beta Beta Beta

The biological honor society Beta Beta Beta annually awards an official society key and scroll to the graduating senior member of the Beta Beta Beta majoring in the biological sciences who has attained the highest academic standing.

## Beta Gamma Sigma

Beta Gamma Sigma is the National Business Honor Society. Only Schools of Business accredited by AACSB International-The Association to Advance Collegiate Schools of Business, may have a chapter of this society. Membership is by invitation only, and invitees must be a junior or senior in the top 10 percent of their class.

## Biomedical Sciences Student Achievement Award

Each year, the Department of Biomedical Sciences presents an award to a biomedical sciences major who has demonstrated exceptional academic achievement, and who has contributed significantly to the community.

## The BRAMS Scholar Award

The BRAMS Scholar Award is presented annually to a graduating Quinnipiac senior who is part of the Quinnipiac University/Betsy Ross Arts Magnet School Partnership. Award recipients are selected based on academic achievement.

## Diagnostic Imaging Academic Achievement Award

This award is presented annually to a graduating senior majoring in diagnostic imaging who has exhibited outstanding achievement in the academic and clinical settings.

## Economics Department Student Achievement Award

This award is given each year to a senior majoring in economics who has shown outstanding academic achievement and who has contributed significantly to the department.

## Entrepreneurship Student Achievement Award

This award is presented to a graduate of the entrepreneurship program who has contributed significantly to the advancement of Quinnipiac, as well as to the program.

## James Fickes Mathematics Award

This award is given to the senior mathematics major who has shown the greatest achievement and future promise as a mathematician, and who has demonstrated leadership both in and outside the classroom.

## Barry Fritz Award in Psychology

This prize is given each spring to a senior in psychology who has completed an independent study project that is both creative and relevant. These two qualities characterized the research of Professor Barry Fritz, in whose honor the award was established. To be considered, the project must be completed by the fall of senior year, but also could be completed in previous years.

## Department of Sociology Joan Phillips Gordon Prize

This award, in honor of Joan Phillips Gordon, former chair of the department, is presented annually to a senior in sociology, social services, criminal justice or gerontology who demonstrates outstanding academic and leadership qualities.

## Health \& Science Studies Student Achievement Award

This award is given each year to a senior majoring in health and science studies who has shown exceptional academic achievement and who has contributed significantly to research or community efforts at the University.

## Highest GPA in Communications

This award is presented to a graduating senior from the School of Communications with the highest overall grade point average, who has shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## The Computer Information Systems Student Senior Achievement Award

This award recognizes a senior CIS major who had demonstrated scholastic achievement and shown leadership on campus.

## International Business Award

This award is presented to a student who has demonstrated academic excellence and professional qualities in international business.

## Albert H. Jente Memorial Prize

A silver key in memory of Albert H. Jente, former treasurer of Quinnipiac, is awarded annually to a member of the sophomore class who has done the most for his or her class through loyalty, cooperation and teamwork.

## Olive Kennedy Memorial Scholarship

The award, made to part-time undergraduate women, was established by Olive Kennedy's family and friends in recognition of the valuable assistance she lent as a counselor to adult students.

## Lambda Epsilon Chi

Lambda Epsilon Chi is the national honor society for legal studies/paralegal students and recognizes students who have demonstrated superior academic performance in a legal studies program.

## Lambda Pi Eta

Lambda Pi Eta is the communication studies honor society. Quinnipiac's Tau Delta chapter seeks to recognize, foster and reward outstanding scholastic achievement, promote and encourage professional development, promote closer relationships between faculty and students and explore options for graduate education in communication studies.

## Legal Studies Book Award

This award is given annually to the graduating senior legal studies student with the highest overall cumulative grade point average who has demonstrated exceptional ability in the discipline.

## Robert G. Leonard Award

The Quinnipiac Sigma Xi Chapter sponsors this annual award for excellence in research by outstanding undergraduate and graduate students in science, mathematics and computers.

## Management Department Award

This award is presented to a senior, majoring or minoring in management, for outstanding performance in organizing and facilitating the development of work groups and projects related to personal and career development.

## Ronald Marangell Memorial Prize for Excellence in Accounting

A plaque and an award are given annually to the outstanding accounting student in memory of Ronald Marangell, a former Quinnipiac accounting student.

## Marketing Department Student Achievement Award

This award is presented to a student possessing expertise in marketing who has made contributions to the field and to the marketing department.

## Modern Languages Department Spanish Writing Award

The Department of Modern Languages in the College of Arts and Sciences sponsors an annual Spanish writing contest. Eligible students write an essay in Spanish, which is judged by departmental professors. The winning student is honored at the College of Arts and Sciences award dinner and receives a commendation and a monetary prize.

## Occupational Therapy Leadership

This award is presented from the faculty to a student who has shown outstanding leadership in academic work, laboratory performance and initiatives within the department.

## Occupational Therapy Outstanding Community Contribution

This award recognizes distinguished service in the field of occupational therapy within the Quinnipiac community and the greater community of occupational therapy within the state or nation.

## Ryan J. O'Neil Entry-Level Master's Physician Assistant Award

This award is presented to the senior ELMPA student who most exemplifies excellent leadership, academic excellence, a cooperative attitude and the strength of character of a future health care professional. The award is in memory of Ryan J. O'Neil, a former ELMPA student.

## Outstanding Community Service AwardFreshman

This award is given to a student in the freshman class who has a C+ average or better, and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Community Service AwardSophomore

This award is given to a student in the sophomore class who has a C+ average or better, and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Community Service AwardJunior

This award is given to a junior who has a C+ average or better and has participated in volunteer service to the community beyond Quinnipiac.

## Outstanding Freshman Award

This award is given to a student who has a 2.75 GPA or better, is involved in one activity and has demonstrated interest in others.

## Outstanding Sophomore Award

This award is given to a student with a 3.0 GPA or better who is involved in activities, with a clearly demonstrated leadership role in at least one activity.

## Outstanding Junior Award

This award is given to a student who has a 3.0 GPA or better and is involved in a variety of activities, with a clearly demonstrated leadership role in one activity and whose strength of character has affected the Quinnipiac community.

## Outstanding Senior Award

This award recognizes a senior who has a 3.0 GPA or better for service, dedication and contribution to Quinnipiac throughout his or her four years.

Outstanding Student Affairs Leadership Award This award is given to students who have demonstrated outstanding leadership qualities, a cooperative attitude and a commitment to improving the quality of life at Quinnipiac.

## The R. Gordon Pauluccy Graduation Prize in Psychology

The Pauluccy family established this endowed fund for an award to be made annually to the senior majoring in psychology who has the highest overall grade point average.

## Outstanding Achievement in Film, Video and Interactive Media

This award recognizes distinguished creative achievement in film, video and interactive media.

## Outstanding Achievement in Journalism

This award is presented to a graduating senior from the journalism program who has shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Outstanding Achievement in Media Studies

This award is presented to a graduating senior from the media studies program who has shown academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Outstanding Achievement in Public Relations

 This award is presented to a graduating senior from the public relations program who has shown academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.
## H. Pearce Family Community Leadership Award

This award is given to a senior undergraduate who has best exemplified the spirit of volunteer community service during his or her years at Quinnipiac.

## Phi Sigma Biological Honors Society

Phi Sigma is an organization devoted to the promotion of research and academic excellence in the biological sciences. Students are invited to become members if they are at least juniors or graduate students, have an overall GPA of 3.0, and are participating in research at Quinnipiac in any area related to the biological sciences.

## Phi Theta Epsilon

Phi Theta Epsilon is a national honor society that recognizes outstanding scholarship and service to the occupational therapy profession.

## Pi Sigma Alpha

Pi Sigma Alpha, the National Political Science Honor Society, is the only honor society for college students of political science and government in the U.S. Its purpose is to stimulate scholarship and intelligent interest in political science, and to honor political science majors who display leadership and academic achievement.

## Political Science Best Senior Thesis Award

The political science faculty has established this award to recognize graduating senior student(s) in political science who have submitted outstanding, as well as original, theses.

## Political Science Best Research Project Award

 The political science faculty has established this award to recognize graduating senior student(s) in political science who have completed an outstanding, as well as original, research project.Harold Potts Memorial Physical Therapy Award This award is given in memory of Harold Potts, former chairman, professor and founder of the physical therapy program at Quinnipiac. The award is presented from the faculty to a fourth-year physical therapy student who has demonstrated academic and leadership excellence, as well as exemplary service to the program and physical therapy profession.

## President's Scholarship Award

This award by the president of Quinnipiac goes to the student who has attained the highest scholastic standing in his or her graduating class and who has completed at least 90 credits at Quinnipiac.

## Psi Chi

Psi Chi is the national psychology honor society, founded for the purposes of encouraging, stimulating and maintaining excellence in scholarship and advancing the science of psychology.

## The Rachel Ranis Prize in Social Justice

This award is presented to a senior in sociology, social services, criminal justice or gerontology who demonstrates a passion for social justice.

## Alice B. Remail Memorial Award

The English department established this award in memory of one of its distinguished members. The award is made to the graduating senior with the highest academic record in English.

## Edward J. Scannell Prize

The Scannell family established this endowed prize fund in memory of former trustee, Edward J. Scannell. Two
prizes are awarded to graduating seniors enrolled in the School of Business who are elected to "Who's Who at American Universities and Colleges."

## School of Communications Overall Achievement Award

This award is presented to graduating senior(s) from the communications program who have shown high academic achievement, made significant contributions to the program, campus life and/or has shown excellent leadership qualities on campus.

## Aurea C. Schoonmaker Spanish Award

In honor of Professor Aurea C. Schoonmaker's 43 years of exemplary teaching at Quinnipiac, this prize is awarded to the senior Spanish major with the highest overall cumulative grade point average.

## The Senior Service Prize in Criminal Justice

This award is presented to the senior criminal justice major who exhibits extraordinary service to the program, campus life and community.

## Sigma Delta Pi

Sigma Delta Pi, national honor society in Spanish, honors students who attain excellence in the study of Spanish language and the literatures and cultures of Spanish speaking people. To be considered for membership in Sigma Delta Pi, a student must: be a junior, have a GPA of 3.2 overall, maintain a GPA of 3.2 in all Spanish courses, and have completed 18 credits in Spanish at the 200 level or above, including two semesters of advanced Spanish language courses, as well as an advanced course in Hispanic literature or culture.

## Sigma Phi Omega

Sigma Phi Omega, the national academic honor society in gerontology, recognizes the excellence of those who study gerontology/aging. The society seeks to promote scholarship, professionalism, friendship and services to older persons, and to recognize exemplary achievement in gerontology/aging studies and related fields.

## Sigma Tau Delta

Sigma Tau Delta's central purpose is to confer distinction upon students of the English language and literature in undergraduate, graduate and professional studies. Our members have the opportunity to be recognized for their outstanding achievements, enrich their education, and advance their careers.

## Sigma Theta Tau International Honor Society of Nursing

Tau Rho is the Quinnipiac University chapter of Sigma Theta Tau International Honor Society of Nursing. This
global community of nurses seeks to improve the health of the world's people by increasing the scientific basis of nursing practice. The organization provides leadership and scholarship in practice, education and research. Membership is by invitation to undergraduate and graduate nursing students who demonstrate academic excellence, and to nurse leaders in the community who exhibit exceptional achievement in nursing.

## Alfred P. Stiernotte Memorial Prize

An annual award is made to the student who has earned distinction in the study of philosophy.

## Student Involvement Award

An award to an outstanding student is presented by Student Government.

## Orville J. Sweeting Memorial Chemistry Award

 In memory of Orville J. Sweeting, former professor of chemistry and Quinnipiac provost, this award is presented to the senior(s) who have exhibited outstanding achievement in both the academic and senior research settings in chemistry.
## The Benjamin and Juliette Trewin Award for Academic Excellence in Nursing

This award recognizes academic excellence and exceptional potential in the discipline of nursing. It is presented to the senior nursing student with the highest overall grade point average. The award is supported by the Benjamin and Juliette Trewin Memorial Endowed Fund, which was established for the nursing program by Estelle Trewin Beecher in memory of her parents.

## The Benjamin and Juliette Trewin Award for Professional Leadership in Nursing

This award recognizes outstanding leadership and exceptional potential in the discipline of nursing. It is presented to the senior nursing student who has made significant contributions to the nursing program and the greater community of nursing. The award is supported by the Benjamin and Juliette Trewin Memorial Endowed Fund, which was established for the nursing program by Estelle Trewin Beecher in memory of her parents.

## Philip Troup Achievement Prize

In memory of Judge Philip Troup, first president of Quinnipiac, a gold key is awarded to a graduating senior who has contributed most to the welfare of Quinnipiac through strength of character and qualities of leadership.

## Wall Street Journal Award

This award is presented to a student for achievement in finance.

## West Educational Publishing Student Award

This award is given to two graduating legal studies students who have demonstrated outstanding achievement and professional growth.

## Who's Who Among Students in American Universities and Colleges

This prestigious award is given to graduating seniors who have demonstrated outstanding scholarship and leadership.

## College of Arts and Sciences Award for Special Achievement

This award is given to the graduating senior in the College of Arts and Sciences who has a record of exceptional achievement in the face of adversity. The award was established in honor of Morris Woskow, former professor of psychology and dean.

## Writing Across the Disciplines Student Award

 Quinnipiac University's Writing Across the Curriculum (QUWAC) program awards two $\$ 250$ writing prizes to students nominated by faculty for having produced writing deemed exemplary for the discipline. An impartial subcommittee of QUWAC chooses the winners. The prize works are then published in the First-Year-Writing Program's handbook for the next year.
## Wyckoff Moore Family Memorial Scholarship

 The fund was established in memory of members of the Wyckoff Moore family. The award is given to a part-time student who has achieved senior status, completed 30 credits and earned a GPA of 3.5 .

## Other Academic Opportunities

## Albert Schrweitzer Certificate for Ethics and Responsibility

This certificate program, affiliated with the Albert Schweitzer Institute, enables students to be recognized for their service to others in keeping with the ideals of the 1952 Nobel Peace Prize Laureate, Dr. Albert Schweitzer. Students earn points toward this certificate through directed academic engagement and volunteer activities. To earn the certificate, eligible students take pre-approved courses that reflect the thought of Dr. Schweitzer or have a service-learning designation, and participate in a variety of service-based activities. Examples of these activities include an alternative spring break opportunity, a semester-long internship program, an internship with a service organization on or off campus, or assuming a leadership role in a campus organization or off-campus non-governmental organization.

## Albert Schweitzer Fellowship Program

This Fellows program, affiliated with the Albert Schweitzer Institute, builds on the Albert Schweitzer Certificate for Ethics and Responsibility by requiring a deeper level of commitment. Interested students are required to organize and lead two off-campus service learning activities,

experiences or projects; participate in a national or international service experience; create an ongoing relationship with a local, national or global partner; keep a journal to reflect on their experiences, and, as a senior, write a paper synthesizing their experience as an Albert Schweitzer Fellow. A one-credit course (credit optional) also is required.

Given the strong interest by potential employers, graduate schools, and professional schools in ethical behavior and concern for others, both of these programs are structured to help a student easily demonstrate his or her dedication to these important values.

## Office of Multicultural and Global Education

Quinnipiac University strives to prepare graduates who manifest critical and creative thinking, effective communication skills, informed value judgments, and who possess an educational foundation for continued growth and development in a changing world of diverse cultures and people.

The chief diversity officer oversees the Office of Multicultural and Global Education, located in Academic Affairs. To better understand the changing world order, at Quinnipiac we believe in working in the intersection of internationalization and multicultural education, which provides creative opportunities for faculty, staff and administrators to:

- help students understand multiculturalism and social justice in a global context
- develop intercultural skills
- broaden attitudes an experiences for students such as study abroad, global service learning, and courses with a travel component
- examine values, attitudes and responsibilities for local/global citizenship
- see how power and privilege are shifting the local/global context
- prepare students to cooperate and compete in a multicultural and global workplace

The officer works closely with the director for multicultural education, the director for global education, and other campus constituencies to ensure that multiculturalism and internationalism are embraced, celebrated and advanced for our students, faculty and staff. The OMGE provides the following services.

## Multicultural Education

Multicultural education provides advocacy for the cultivation of a sustainable campus environment that is supportive of a diverse student body.
Services provided by this office include:

- Works collaboratively with academic and administrative units to foster intercultural dialogue and programming.
- Delivers academic and social mentorship for underrepresented students to live, work, lead and succeed in a multicultural and global world.
- Assists multicultural student organizations in leadership development to enhance their active engagement and participation in the University community.
- Offers programming that enhances students' understanding and appreciation of various, ethnic, racial, sexual orientation, socioeconomic class and other cultural identities.
- Provides opportunities for students and faculty to learn about, embrace and celebrate diverse ethnic, racial and cultural identities.


## Global Education

Global education promotes, supports and develops a wide range of international and intercultural opportunities for all members of the community. Services provided by this office include:

- Provides international experiences through education abroad.
- Maintains a supportive and stimulating environment for international students, faculty and staff.
- Hosts events and programs to increase the international activities at Quinnipiac.


## International Student Services

The Office of Multicultural and Global Education provides services for the international student population at Quinnipiac University. The office organizes on- and off-campus programs and events that are open to both international and domestic students. Services are provided from the time of acceptance through completion of the program, and many times extend beyond the program end date. Services include preparation of documents for visa issuance and work authorization, as well as workshops on employment, taxes and immigration procedures. Additionally, the office hosts a comprehensive orientation program each semester to prepare incoming international students and

scholars for life and study at Quinnipiac University. For more information, contact the Office of Multicultural and Global Education at 203-582-8425 or via email at international.student@quinnipiac.edu.

## Education Abroad

Quinnipiac students participate in semester, shortterm, and faculty-led programs abroad in various countries such as Ireland, Australia, Costa Rica, Spain, Italy and China, to name a few. All students are advised to plan early for study abroad and attend an information session offered throughout the semester.

## Semester Abroad Policies:

1. Students must maintain a minimum GPA of 3.0. Students whose GPA falls between 2.6 and 2.9 must submit the Request for Waiver of GPA Requirement form. In special circumstances, Quinnipiac University may approve a waiver in its sole discretion. Students whose GPA falls below 2.6 are not allowed to study abroad. It should be noted that approved study abroad programs may have additional GPA requirements.
2. Students must not have any existing or pending conduct sanctions. Students with a conduct sanction or who have one placed on them after being accepted to study abroad must submit a Request for Waiver of Conduct Clearance. In special circumstances, Quinnipiac University may grant permission to study abroad in its sole discretion.
3. The study abroad program must be preapproved by the Quinnipiac University Office of Multicultural and Global Education.
4. Students must maintain full-time student status (i.e., 12-16 class credits) while abroad. In certain countries, a normal semester load can consist of four courses, which can be equivalent to 12 QU credits. Students can take five courses if necessary, however, in certain cases this can be a significantly difficult workload, and may not be advisable. Please note that there also may be an additional fee for enrolling into a fifth course, and/or special permission required from the host institution.
5. Students studying abroad are required to receive approval from their academic advisers and respective dean(s) for all courses listed on the Study Abroad Registration Form.
6. Students must comply with all policies and procedures as outlined by the QU Procedures for Studying Abroad.
7. Quinnipiac students study abroad payment includes, but is not limited to: a registration fee, Quinnipiac's full-time tuition, the cost to live in the Quinnipiac Commons Residence Hall, less the dining service fee, and an obligatory overseas emergency and medical insurance fee. If the Quinnipiac-approved study abroad program costs exceed the sum of Quinnipiac's tuition and housing, the difference will be paid to Quinnipiac by the student. When studying through a Quinnipiac-approved study abroad program, the student is responsible for paying any refundable security deposits, program application fees and/or program withdrawal fees directly to the study abroad program. Depending on the study abroad program, students also may be expected to cover the cost of additional expenses including, but not limited to: airfare, visa, meals, academic materials, public transportation, personal travel, etc. Inclusions and exclusions may vary by program.
8. Students are required to reside at the study abroad program resident/program housing.
9. Students who receive financial assistance at Quinnipiac may apply their financial aid for study abroad, including federal aid, state grants, college grants and scholarships.
10. Withdrawal from a program initiated by the student, Quinnipiac, the program affiliate, and/or the host institution will result in a loss of fees and tuition in accordance with Quinnipiac's refund policy. Depending on the circumstances of the withdrawal, the student
may be subject to action based on Quinnipiac's Student Conduct System.
11. For Quinnipiac students studying abroad, the credits and grades for approved courses taken abroad become part of the students' academic transcript, and all grades are included in the calculation of the students' GPA. Grades are the exclusive prerogative of the faculty members teaching the courses. If students have questions about grading in any particular course, they must consult the faculty member teaching that course. Questions involving grades issued for study abroad course undertaken through other institutions should be directed to those institutions. Quinnipiac will not change grades issued by another institution.
12. Students may not take classes for a pass/fail grade unless there is no other grade given for that course.
13. Students who have not completed the Study Abroad Course Registration Form, complied with policy and procedure as outlined by the Quinnipiac Procedures for Studying Abroad, will not receive transfer credit and will be ineligible to study abroad through Quinnipiac University.

## Short-term Study Abroad Policies

1. Students must be in good academic standing and must not have any existing or pending conduct sanctions. Students with a conduct sanction or who have one placed on them after being accepted to study abroad must submit a Request for Waiver of Conduct Clearance. In special circumstances, Quinnipiac may grant permission to study abroad in its sole discretion.
2. The short-term study abroad program must be preapproved by the Quinnipiac Office of Multicultural and Global Education.
3. Students shall be limited to two courses taken abroad during their short-term program. If more courses are requested, then the student must file a variant procedure with the dean of their college or school.
4. Students are eligible to apply for financial aid if they are enrolled in 6 credits. Please inquire with the Financial Aid Office for further information.
5. To receive credit for classes taken abroad on a short-term program, students must have preapproval from the associate dean of her/his
school prior to the set deadlines stated in the Quinnipiac Procedures for Studying Abroad.
6. A grade of "C" or better will be accepted for transfer credits for all short-term study abroad programs. No letter grade is given for these credits. If the short-term program course grades are less than C , the credits are not accepted at Quinnipiac University.
7. Students are not exempt from the Undergraduate Summer Credit Policy as outlined in the Course Schedule and Registration Bulletin, which prohibits students from taking more than 7 credits during the summer.
8. Students who have not completed the Summer Study Abroad Registration Form or complied with policies and procedures as outlined by the Quinnipiac Procedures for Studying Abroad, will not receive transfer credit and will be ineligible to study abroad through Quinnipiac University.
9. When studying through a Quinnipiac-approved short-term study abroad program, the student is required to pay the program cost directly to the program. The student is responsible for paying Quinnipiac's study-abroad health insurance, and an emergency medical/security service plan. Payment must be given to the Office of Multicultural and Global Education by set deadlines. This fee will be paid for each month the student is out of the country. Failure to make the required payments will disqualify a student from receiving transfer credit.

## Quinnipiac in Cork, Ireland

All Quinnipiac students also have the opportunity to study at University College, Cork, in Ireland for a semester, academic year, January or summer term. Through this direct program, students are encouraged to fully participate in the programs and courses offered by UCC. For more information, visit the UCC website: www.ucc.ie/international.

## Internships

Internship opportunities are available for qualified students through Quinnipiac's custom and affiliate programs. In addition, Quinnipiac maintains an involvement in the Oscar Arias Foundation through its sponsorship of the Arias-Schweitzer Internship. This provides students a special opportunity to work on some of the most pertinent issues in Latin America.

## Faculty-led Programs

Quinnipiac faculty members also plan courses with a study-abroad component to various countries during the January term, Spring break, and summer terms. Some of the countries visited include Canada, Costa Rica, various European countries and South Africa. Students interested in participating in a Quinnipiac faculty-led program should contact the Office of Multicultural and Global Education.

## Campus Ministry

The Office of Campus Ministry provides spiritual and pastoral counseling, worship, sacraments and celebratory activities. A full-time priest, rabbi and Muslim chaplain are on staff, as well as a part-time protestant minister who represent their own faith communities, and are the spiritual representatives at University gatherings such as Commencement and Convocation. The chaplains strive to create an environment that will enhance religious and spiritual awareness. The Rev. Hugh Vincent Dyer's office is located on the second floor of the Student Center in room 205. He can be reached at 203-582-8257. Rev. Susan Fowler, PhD, is the University's protestant minister. Her office is located on the second floor of the Student Center, room 202J. She can be reached at 203-582-6477.

Shamshad Sheik is the Muslim chaplain. Her office is located on the second floor of the Student Center, room 202L. She can be reached at 203-582-6479.

Rabbi Reena Judd's office and all Jewish events are held at Quinnipiac's Hillel House, located on New Road. For more information about Hillel, contact Rabbi Reena Judd at 203-582-8206 or email reena.judd@quinnipiac.edu.

## School of Law

The School of Law offers programs of day and evening courses leading to the JD degree.

A full complement of student organizations exists at the law school, including a nationally honored Student Bar Association. In the tradition of American law schools, the School of Law sponsors student-edited scholarly journals, the Quinnipiac Law Review, the Quinnipiac Health Law Journal and the Quinnipiac Probate Law Journal, which contribute both to student education and to legal scholarship. The law school also is host to two legal fraternities, Phi Alpha Delta and Phi

Delta Phi. To contribute to the development of advocacy skills, the law school has a Moot Court Society and a Mock Trial Team. The law school also has a number of law associations such as the Black Law Students Association, the Women's Law Society, the Latin American Law Association, the Environmental Law Society, the International Human Rights Law Society, and the Sports and Entertainment Law Society.

The School of Law has several clinics and numerous externships through which students do pro bono work in the community and acquire practical legal skills.

## Prelaw

Students interested in attending law school must have a BA or BS degree and have taken the Law School Admission Test. No single prelaw course of study is required or recommended. Several broad objectives of prelegal education, however, have been set forth by the Association of American Law Schools.

Students should take a range of courses that provide fundamental skills and understanding of language, the ability to think and write clearly and succinctly, logical reasoning and analytical skills, and an appreciation of social, political and economic foundations and complexities.

Toward this end, every prelaw student should carefully choose, with the assistance of his or her academic adviser and/or the prelaw adviser, courses that hone those skills listed. Students or graduates who have an interest in law school should contact Quinnipiac University prelaw adviser, Jessica Hynes, at 203-582-3688, CLA-1, room 337, or jessica.hynes@quinnipiac.edu for further information and, if appropriate, should join the Prelaw Society to learn more about the LSAT and law school admissions and financial aid.

## Frank H. Netter MD School of Medicine

 Pending approval by the Liaison Committee on Medical Education and the state of Connecticut's Office of Financial and Academic Affairs for Higher Education, the Frank H. Netter MD School of Medicine will begin receiving applications in October 2012 for its charter class of 60 students, who will begin classes in August 2013.The School of Medicine will be a model for educating diverse, patient-centered physicians who are partners and leaders in an interprofessional
primary care workforce responsive to health care needs in the communities they serve. It will enable students to attain their highest personal and professional potential in a collaborative environment that fosters academic excellence, scholarship, lifelong learning, respect and inclusivity. The school embodies the University's commitment to the core values of academic excellence, a student-oriented environment and a strong sense of community.
Accordingly, the school values:

- diversity and inclusiveness in all students, faculty, and staff
- excellence in education that places the student at the center of the learning experience, and nurtures the student's independence as a lifelong learner
- a learning environment that promotes the provision of holistic, patient-centered primary care
- interprofessional education and servicelearning experiences to promote teamwork in the care of patients
- clinical partners who support and promote the school's vision, mission and values
- social justice and the education of physicians to address health care inequities
- partnerships within our community that provide students with learning and service opportunities to improve the health of the community
- advancement of global health by promoting primary care, patient education, community medicine, public health and international partnerships
The four-year curriculum leading to the MD degree is comprehensive and integrated. Core biomedical principles are correlated temporally and contextually with behavioral, clinical and allied health sciences. The curriculum emphasizes active student learning designed to equip graduates with the tools to be effective lifelong learners. Learning occurs in a variety of settings: small-group conferences, case-based learning seminars, lectures, with patients and independent study.

The curriculum is holistic in scope; content such as prevention and wellness promotion, population health, complementary and alternative medicine, and the study of contemporary health care systems are incorporated into discussions of the traditional diagnosis and treatment of medical diseases.

Each course has longitudinal themes that anchor the content in a pedagogically relevant and cohesive manner. These significant learning experiences shift the focus from "what is taught" to "what and how students learn." The longitudinal themes include medical informatics, biostatistics, epidemiology, ethics, nutrition and sociobehavioral science.

Students begin clinical experiences in their first year and assume increased clinical responsibility in their second through fourth years. They have opportunities to formally study clinical skills during the clinical arts and sciences course, which uses standardized patients and state-of-the-art simulation labs. Students also meet weekly with a primary care physician, seeing patients, practicing clinical skills, and learning how to work effectively with other health care team members. The first year follows an organ system approach to biomedical sciences, focusing primarily on normal human function. To increase the medical context of this approach, students learn the fundamentals of common diseases in each curricular area. Year 2 follows a pathophysiological approach to content, exploring topics in greater depth and with enhanced sophistication and understanding. Students are exposed to a broad array of human diseases and best practices for diagnosis and management.

Students are allowed to individualize their medical education by selecting a field of concentration for elective course work. The elective
course work provides the foundation for a student's capstone project, an independent research project. Elective concentration areas may include health management, policy, economics, law, education (including interprofessional education), global health, communications, ethics, humanities, or the student may design a novel concentration area with the support of a faculty adviser.

## Premedical Studies

The premedical studies program is designed for students who are interested in health professions that include, but are not limited to, medicine (allopathic and osteopathic), dentistry, physician assistant, pharmacy, optometry, chiropractic, physical therapy, podiatry and veterinary medicine. Admission to graduate programs in the health professions normally requires additional courses outside of the chosen major. This additional study can be accomplished through the premedical studies program, which provides undergraduate students with the appropriate educational and experiential background necessary to meet the entrance requirements (including course work required to prepare for standardized entrance examinations) of the different graduate programs in the health professions.

The premedical studies program must be declared in addition to another degree and is NOT a stand-alone program.

Students should seek advice directly from a member of the Health Professions Advisory Committee. In addition to helping students to select courses, faculty advisers from the Health Professions Advisory Committee suggest extracurricular activities to meet the specific requirements for the field of interest. These activities include participation in basic/applied research; clinical work; volunteer work; experiences that increase personal integrity, interpersonal skills, maturity and illustrate a genuine interest in medicine (i.e., alternative spring break opportunities and philanthropic activities); leadership experiences/effective teamwork; computer literacy; and opportunity to develop interviewing skills. The committee also writes letters of recommendation for individuals applying to postgraduate studies in the health professions that require a committee letter.

## Grade Requirements

Many professional schools require a minimum grade point average to apply for and gain admission. Completion of the requirements of the premedical studies program or the medical scholar component does not guarantee acceptance to graduate programs, as it is only one criterion among many that are used in determining admission. As such, the premedical studies program has the following minimum GPA requirements:

- Overall Grade Point Average (GPA) 3.0
- Science GPA 3.0

Even though a student may be in the premedical studies program, they must meet the GPA and course requirements upon graduation to have this designation appear on their transcripts with their degree. The premedical studies program designation will not appear on transcripts if the GPA and course requirements are not met at graduation, but the student will still graduate with the degree that they originally declared if they meet those degree requirements.

## Medical Scholar

Students in the premedical studies program also may receive the designation of medical scholar if the following additional requirements are met: - overall Grade Point Average (GPA) 3.67

- science GPA 3.67
- competitive scores on standardized examinations
- recommendation of the Health Professions Advisory Committee
Candidates will not achieve their final medical scholar designation on their transcripts until graduation requirements are complete. At that time, the awarding of the medical scholar designation is made based upon the above requirements and the recommendation of the Health Professions Advisory Committee.

The Health Professions Advisory Committee will make the final award based upon a review of health care and/or research experience, a portfolio, and interviews during the junior and/or senior year.

## Course Requirements

All courses listed in this section may count toward both the major (if allowed) and the premedical studies program.

## Required Courses

(All Courses Required for a Minimum of 44 Credits)
Students must complete all of the listed required courses, as they are the minimum prerequisites for admission to most medical schools and form the basis of standardized admission tests (Medical College Admission Test, Dental Admission Test, Optometry Admission Test, and Pharmacy College Admission Test).

| Course | Title | Credits |
| :--- | :--- | ---: |
| Biology 101-101L | General Biology I (Lecture \& Lab) | 4 |
| Biology 102-102L | General Biology II (Lecture \& Lab) | 4 |
| Chemistry 110-110L | General Chemistry I (Lecture \& Lab) | 4 |
| Chemistry 111-111L | General Chemistry II (Lecture \& Lab) | 4 |
| Chemistry 210-210L | Organic Chemistry I (Lecture \& Lab) | 4 |
| Chemistry 211-211L | Organic Chemistry II (Lecture \& Lab) | 4 |
| Physics 110-110L | General Physics I (Lecture \& Lab) | 4 |
| Physics 111-111L | General Physics II (Lecture \& Lab) | 4 |
| English 101 | Elements of Composition I | 3 |
| English 102 | Elements of Composition II | 3 |
| Mathematics 141 | Calculus of a Single Variable I | 3 |
| Additional Mathematics Course | 3 |  |
| $\quad$ Mathematics 140 |  |  |
| $\quad$ or Mathematics 142 |  |  |
| $\quad$or a course in applied statistics <br> Recommended Elective Course Work |  |  |

Pre-Calculus and Calculus of a Single Variable II
Students are encouraged to check the specific prerequisite course requirements of any health professions program to which they intend to apply. The selection of additional courses, especially those emphasizing critical reading and writing should be at the discretion of the student in consultation with the student's academic and prehealth professions advisers.

Many professional schools recommend additional elective course work in preparing for admission. Course work in the humanities and social sciences provide breadth, and science electives provide a more extensive background for subjects covered by the standardized admissions tests. Students should engage in individual or team research experience as a course or independent study.

The most commonly recommended science courses by medical schools in the area surrounding Quinnipiac University (CT, MA, NH, NJ, NY and PA) based upon the Association of American

Medical Colleges (AAMC) publication Medical School Admission Requirements (MSAR ${ }^{\circledR}$ ) include biochemistry and genetics, while the 5th Comprehensive Review of the Medical College Admission Test (MR5) also notes the importance of cell biology.

## Transfer Students

Students who transfer to Quinnipiac University and want to pursue the premedical studies program still need to have completed all of the prerequisite courses. Although Quinnipiac University may transfer the credits for courses taken elsewhere and not the grades, for the premedical studies program, grades from required and/or elective courses from other institutions will be used to ensure that a GPA of at least 3.0 based upon all premedical studies courses. The overall GPA for transfer students will be calculated as for all other transfer students (based only on the courses completed at Quinnipiac University).

## Advanced Placement Credits

Some health professions schools accept AP credits provided that applicants replace courses for which AP credit has been granted with a course in the same discipline at a higher level. Other schools, including many medical schools, do not accept AP credits as a replacement for prerequisite science courses. Students are encouraged to check with the specific course requirements of any graduate health profession program to which they intend to apply.

## Field Studies

During summer, winter and spring vacations, Quinnipiac offers faculty-led field trips for credit to sites in the United States and abroad. Field studies trips, to carefully selected locations, are designed to take advantage of the unique educational opportunities made possible by direct contact with other cultures. Pre-trip orientation and on-site instruction are provided by the faculty.

## Washington, D.C., Semester Programs

Washington, D.C., Semester Programs are multidisciplinary, experiential learning programs bringing students from around the nation and the world to semester-length internships, research projects and seminars in the national capitol. Students in any major may apply. Quinnipiac is
affiliated with two organizations, which offer modules that focus on students' particular areas of interest, such as American politics, economic policy, journalism, international development and the arts. Occasionally students have the opportunity for two-week inter-term and summer seminars. All students must complete an independent research project related to their experience in the program.

To be eligible, Quinnipiac students must have a minimum GPA of 3.00 and not be under judicial sanctions. Students must pay full-time Quinnipiac tuition for the semester in Washington, D.C. An additional fee (based on the cost difference between Quinnipiac tuition and the program sponsor's fee) is assessed each student who selects a Washington semester program whose costs exceed Quinnipiac's tuition. Students receiving financial aid at Quinnipiac may apply their aid to the Washington, D.C., semester; this includes federal aid, state grants, and college grants and scholarships. Additional scholarships from the affiliated programs or other sources may also be applied to tuition or housing costs. For details about the programs and application deadlines, please contact Professor Scott McLean in the Department of Political Science, at 203-582-8686.

## SQUID Certificate Program

SQUID stands for Scholars at Quinnipiac University Integrating Difference. This certificate program, offered through the College of Arts and Sciences, is designed to acknowledge the effort students have made to learn about the broad variety of human experience. Students in any undergraduate program who are interested and who complete three SQUID-designated courses of their choice are eligible to achieve a certificate from the College of Arts and Sciences that reflects the commitment they have made to diversify their college curriculum. Many students seek out opportunities to learn about people in societies who have been historically underrepresented and underprivileged. Interested students should contact Prof. William Jellison in the College of Arts and Sciences.

## Other Academic Resources

## Arnold Bernhard Library

The Arnold Bernhard Library serves the undergraduate and graduate populations of the University and provides support for the Quinnipiac University School of Law. Approximately 48,000 square feet in size, the Bernhard Library provides 600 seats, 13 group rooms, a 30 -seat instructional facility, more than 60 public computer terminals, and nearly 600 power/data connections for laptop computers.

In addition to the group study rooms, students can select from individual study carrels, tables, soft seating and rocking chairs with magnificent views when they visit the facility. A large variety of webbased resources (including a growing number of full text/full image titles) are available, as well as printed volumes, microforms and audiovisual materials. Supporting this new facility are the combined staffs of the library, academic technologies and media services.

This building also houses the clock tower, the executive suite, the Offices of Administrative Services, the Bursar, Registrar, Procurement and Information Services.

## Bioanthropology Research Institute

Quinnipiac's Bioanthropology Research Institute, administered through the School of Health Sciences, provides research opportunities for students and faculty in a variety of disciplines. Research projects, field experiences and international course work provide unique opportunities to experience current and ancient cultures. Research projects often lead to publications and presentations at professional conferences. The field of bioanthropology naturally crosses many disciplines, including both science and arts. The Bioanthropology Research Institute has formal relationships with international research groups such as Centro Mallqui in Peru as well as with many well-known domestic and international museums.

Students should contact the School of Health Sciences for more information.

## Bristol-Myers Squibb

Center for Science Teaching and Learning
Quinnipiac University's Bristol-Myers Squibb Center for Science Teaching and Learning is a network of scientists and educators working in concert to advance the art of science education from kindergarten to university level.

The center draws on the expertise of:

- Quinnipiac's departments of biological sciences and chemistry and physical science in the College of Arts and Sciences
- Quinnipiac's School of Education
- Statewide K-12 school districts
- Schooner, Inc.
- BioBus
- CT Academy for Education
- Various governmental partners, including the Department of Environmental Protection
In recent years, the United States has fallen far behind other developed nations in its preparation of students for careers in science, math and technology (ranking 15th in math and 9th in science worldwide), as well as failing to provide basic science literacy to its citizens. In response to this desperate need, the center offers professional development experiences for $\mathrm{K}-12$ teachers in proven techniques for successful science instruction.

Currently, the Bristol-Myers Squibb Center for Science Teaching and Learning provides professional development workshops for teachers in inquiry-based teaching methods and provides innovative tools with which to teach science. The center strives to support student proficiency and achievement in science.


## Center for Interprofessional Healthcare Education

The Center for Interprofessional Healthcare Education at Quinnipiac University strives to achieve the University's three core values: highquality academic programs, a student-oriented environment and a strong sense of community in the development of health care professionals who work collaboratively to provide evidence-based and coordinated patient or client-centered health care. The mission of this center is to develop, promote and measure the effectiveness of interprofessional learning opportunities for faculty and students that lead to effective team-based practice.

Interprofessionalism is a process by which two or more professionals work collaboratively to critically examine issues in health care education and practice. The overarching purpose of the center is to develop opportunities for faculty, students and community partners to learn together to promote team practice that meets the challenges of future health care systems.

## Clarice L. Buckman Center and Theater

This building houses science laboratories, faculty offices, classrooms, and a 177 -seat theater for lectures and theater performances.

## Technology Assistance

All incoming students are required to have a laptop computer readily available to them with no exceptions. Information Services annually recommends a specific hardware and software laptop configuration that meets or exceeds these technical standards (specific information on the most current program can be found at www.quinnipiac.edu/x1209.xml). By selecting the recommended laptop, students will receive exceptional service and support on and off campus. Students who elect to bring their own laptops to campus (other than the recommended one) also will be afforded technology assistance often of a less comprehensive nature due to the many possible variations of alternatives. Ultimately, it is the responsibility of the student to perform in the classroom.

Although laptops meet the vast majority of student needs, for those disciplines that require more specialized hardware or software, the University has more than 350 computers in 12

computer laboratories throughout the campus. The University maintains a secure and advanced data network that connects all University computers on all three Quinnipiac campuses. Students, faculty and staff are able to access this secure network through wired and wireless access. Wireless access is found across all three campuses, including the residence halls, classrooms, athletic fields and public areas.

The Arnold Bernhard Library is open 24 hours a day during the academic year, and contains more than 100 publicly available computers, as well as the Technology Center, where faculty and students can receive computer repair services and help with equipment and software for capturing and processing digital audio, images and video. The library also provides an extensive collection of online bibliographic databases and full text journals for use in the library or remotely through the campus network.

## Terry W. Goodwin '67 <br> Financial Technology Center

Quinnipiac University created its own state-of-the-art Wall Street trading room with the Terry W. Goodwin '67 Financial Technology Center in the Lender School of Business Center. The 2,000 square-foot center allows students to make realtime investment decisions and learn how the financial markets work by managing a real-life student portfolio. Software installed in the center's 53 computer workstations allows students to access real-time financial data, practice analytical finance methods, conduct trading simulations, analyze economic databases and develop financial models.

## Learning Center

The Learning Center assists students in reaching their academic potential by offering various programs of academic support. Learning Center offices are located in Tator Hall, on the first floor.

Quinnipiac's nationally certified peer tutor program offers individual peer tutoring in nearly all 100-level courses, many 200- and 300-level courses and supports many of the graduate degree programs. Tutoring is content-specific and addresses both entry-level and advanced courses such as mathematics, writing, science and many other specialized subject areas.

Content is only one aspect of the educational experience. The Learning Center also offers learning skills seminars, weekly meetings that address specific skills interactively. In addition, class-specific workshops and individual meetings all help students achieve their academic potential. Working with students to identify the strengths and weaknesses they bring to the university experience, the Learning Center staff helps students develop skills and strategies that contribute to their success at Quinnipiac, the better to be prepared for their career.

The Learning Center staff also coordinates the Advanced Learning Seminar. This seminar, meeting weekly, is open to students on academic probation who meet specific criteria. Through assessment and subsequent individual action plans, students work toward specific academic goals that reinforce their success in the University environment.

The Learning Center recognizes that people learn differently. Following the guidance of ADA/504, the coordinator of learning services meets individually with students who disclose a disability, assisting them to meet the academic challenges they face.

The Learning Center offers a venue for academic support. Staffed by helpful professionals, equipped with appropriate technology and texts, the Learning Center is an important facet of a successful student's experience at Quinnipiac. For more information, contact the director of the Learning Center.

Lender School of Business Center and Ed McMabon Mass Communications Center
This state-of-the-art building contains case study rooms, two local area network (LAN) rooms, classrooms, an executive conference center, faculty offices and executive offices for the senior vice president for academic and student affairs and the dean of the School of Business-all of which are linked by a highly sophisticated computer network. This building also houses the Ed McMahon Mass Communications Center, a modern and wellequipped media production facility that provides students with a completely digital high-definition television (HDTV) studio, the latest in broadcast technology, a spacious, professional-level television studio, a Pro Tools HD audio studio, a fully computerized newsroom with 25 workstations and Associated Press wire service, advanced non-linear digital video editing systems, a digital desktop production lab for interactive multimedia design, website development, electronic publishing and digital imaging, an audiovisual production resource depot and a screening room with video projection and theater-quality sound. Two cable television channels originate from the McMahon Center, providing the campus with student-produced programming from the Q30 student television organization as well as other cablecasts.

## Albert Schweitzer Institute

The Albert Schweitzer Institute is an international, nonprofit organization that conducts educational programs. Inspired by Dr. Albert Schweitzer's exemplary humanitarian service and concept of "reverence for life," the institute's programs:

- focus on health, humanitarian and peace efforts
- support health care development in underserved areas
- motivate young people to serve the community and the environment as a way of life
- increase public awareness of Schweitzer's philosophy and its potential for a more peaceful and sustainable world.
The institute, located adjacent to the campus at 660 New Road, houses the offices of its executive director as well as the Albert Schweitzer museum, which consists of artifacts from Schweitzer's collections and other humanitarian exhibits. Schweitzer was the recipient of the Nobel Peace Prize in 1952.


## North Haven Campus

## School of Education

The School of Education is located in Building 1 on the North Haven Campus. Classes for students in the master of arts in teaching program and the educational leadership program are taught on this campus.

The Education Suite is designed specifically for teachers in training. Two specially equipped classrooms feature expanded cabinet and storage space for curriculum materials and touch-screen SMART boards. Education classes take place in these rooms, as well as in other classrooms in Building 1.

In addition, the new space gives full-time faculty members private offices, and includes a sitting area where students and faculty can meet informally and a large curriculum center with windows overlooking the campus pond and lawns.

## School of Health Sciences

The Quinnipiac University School of Health Sciences is located in Building 1 on the North Haven Campus. The facility serves upperclassmen and graduate students in the biomedical sciences, cardiovascular perfusion, diagnostic imaging, occupational therapy, pathologist's assistant, physical therapy, physician assistant and radiologist assistant programs.

The facility houses several high-tech labs, including the CT Scan Lab and the MRI Lab. Quinnipiac is the only university to have MRI and CT equipment primarily for teaching and research purposes.

Other labs include two radiography labs, an ultrasound lab and a mammography lab as well as the Movement Study Lab, which enables occupational therapy students to work with people who have sensory integration dysfunction; the Motion Analysis Lab, where movement is studied through a kinematic analysis system; the Biomechanics Lab, the Learning Lab, and the Ergonomics and Assistive Technology Lab.

The Model Apartment provides a space for students to practice the techniques that can make independent living possible for those with physical disabilities, developmental disabilities, and well elderly.

Additional resources include the Orthopedics Lab and six spacious rehabilitative sciences labs, as well as the Clinical Simulation Labs, carefully crafted hospital rooms that house lifelike simulation mannequins, which can be programmed with a variety of medical ailments and illnesses. QU's SimMan patient simulator family includes three adults, an infant and a newborn.

The Pediatric/Neonatal Lab, a working laboratory, filled with infant mannequins, introduces students to this special area of health care in the acute setting.


Other state-of-the-art health care facilities include the Clinical Skills Labs and the Intensive Care Unit, which are used to create real-world conditions to prepare students for clinical training assignments; the Physical Diagnosis Lab, Physical Exam Suite and Health Assessment Lab, which duplicate care in an outpatient primary care setting, such as an emergency room or doctor's office.

## School of Nursing

The Quinnipiac University School of Nursing, located in Building 1 on the North Haven Campus, offers undergraduate and graduate programs in the field of nursing. A state-of-the-art facility and cutting-edge resources are available to students. Specialty lab units include the Clinical Simulation Labs, carefully crafted hospital rooms that house lifelike simulation mannequins that can be programmed with a variety of medical ailments and illnesses. QU's SimMan patient simulator family includes three adults, an infant and a newborn.

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## College of Arts and Sciences

## Robert W. Evans College of Arts and Sciences Center 203-582-8730 (central office)

## Administrative Officers

Dean
Assistant Dean for Career Services
Associate Dean
Associate Dean

## Departments/Programs

Department
Biological Sciences
Chemistry and Physical Sciences
English
History
Legal Studies
Mathematics and Computer Science
Modern Languages
Philosophy and Political Science
Psychology
Sociology
Visual and Performing Arts
Graduate Program
MS in Molecular and Cell Biology
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Asian Studies
Behavioral Neuroscience
Computer Science
Criminal Justice
Dispute Resolution
Fine Arts
Game Design and Development
Gerontology
Interactive Digital Design
International Studies
Middle Eastern Studies
Music
Philosophy
Prelaw Advising
Premedical Studies Program
Science and Values
Sports Studies
Studies in the Law
Theater
Women's Studies

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Jill E. Martin 203-582-8712
Stephen Henderson 203-582-3751
Greg Garvey 203-582-8389
Lynne Hodgson 203-582-8950
Pattie Belle Hastings 203-582-8450
Sean Duffy 203-582-8324
Nita Prasad 203-582-3729
George Sprengelmeyer 203-582-6426
Benjamin Page 203-582-8328
Jessica Hynes 203-582-3688
C.J. Kovelowski 203-582-4743

David Valone 203-582-5269
Keith Kerr
203-582-3810
Jill E. Martin 203-582-8712
Crystal Brian
203-582-8394
Jennifer Sacco 203-582-8972

## Mission Statement

The faculty and students of the College of Arts and Sciences share a belief in the value of a comprehensive college education - an education that requires foundational study in the natural sciences, social sciences, humanities and fine arts, as well as a concentration in one of 21 majors. A degree in arts and sciences helps students build fulfilling and meaningful lives and is a strong basis for a preprofessional education. Careers in the 21st century require great creativity, critical thinking, and fine writing. The ability to think is more important than any narrow job preparation. The arts and sciences curricula require demanding study while providing extensive faculty support in small classes and laboratories.

Whether a student is pursuing a bachelor of science or bachelor of arts degree, he or she is part of a learning community in which students and faculty are makers of knowledge, not simply receivers and dispensers. Faculty and students study and experience a society increasingly defined by global, scientific and cultural awareness and a diversity of populations. The course of study provides ample opportunity for students to participate in internships that help to bridge their education and its application. The college also offers programs that connect directly to professional preparation, including the five-year master of arts in teaching program, taught in conjunction with the School of Education. Most importantly, the arts and sciences program provides an exciting, well-rounded program of study that is both fulfilling and rewarding.

## General Requirements

The requirements for the bachelor of arts and bachelor of science degrees are qualitative and quantitative. Completion of 120 credits with a grade point average of C or better is not in itself sufficient to qualify for graduation. In addition to the general Quinnipiac requirements, eligibility for a bachelor of arts degree also requires the satisfactory completion of both arts and sciences requirements and those in a major or field of concentration. Specific major requirements are noted below under the individual departmental or area descriptions. Students should be cautioned that an average of C , or 2.0 , in the student's major is a minimum requirement for
each major and that some departments may require higher standards as noted.

Of the 120 credits required for the bachelor's degree, only 6 credits of arts and sciences workshop courses and/or physical education courses may be applied. Primary responsibility for knowing and completing all course requirements rests with the student.

## University Curriculum and College of Arts and Sciences Requirements

The College of Arts and Sciences offers two tracks: the liberal arts track and the sciences track. Students on either track are required to pursue a balanced program of study, as described below.

## Liberal Arts Track

The requirements listed below apply to students who are pursuing a BA or BS in computer science, criminal justice, English, game design and development, gerontology, history, independent majors, interactive digital design, legal studies, mathematics, philosophy, political science, psychology, social services, sociology, Spanish or theater.

Students, in consultation with their advisers, select courses to satisfy the UC requirements in conjunction with their major and College of Arts and Sciences requirements.

The College of Arts and Sciences requirements for this track include:

- one course outside the major in the social sciences
- one course outside the major in the humanities
- one course outside the major in the fine arts
- three 300-level courses outside the major
- one foreign language through the 102-level (chosen from ARB 102, CN 102, FR 102, GR 102, HBR 102, IT 102, JP 102 or SP 102)
A student pursuing a double major is exempt from these College of Arts and Sciences requirements, with the exception of the foreign language requirement.

Some courses may be used to satisfy more than one requirement. For example, a sociology major could use a 300-level English course to satisfy two requirements-the outside-the-major requirement in the humanities and one course in the non-major 300-level courses.

## Sciences Track

The requirements listed below apply to students who are pursuing the BS in biochemistry, biology, chemistry or behavioral neuroscience.

Students, in consultation with their advisers, select courses to satisfy the UC requirements in conjunction with their major requirements in the natural sciences. In contrast to students in the liberal arts track, students are advised to enroll in their science core in the first semester of their freshman year.

Whatever their intended major, students in the sciences track should understand that many of their introductory courses are available only as sequential, fall/spring offerings. For example, BIO 101 General Biology I and CHE 110 General Chemistry I are offered only in the fall, and BIO 102 General Biology II and CHE 111 General Chemistry II are offered only in the spring. Further, advanced courses absolutely require the introductory courses as prerequisites.

Because of these curriculum considerations, students are well advised to review the suggested four-year curriculum for their major in the University Catalog, as well as take full advantage of the recommendations of their faculty adviser.


## Academic Advising

The College of Arts and Sciences has a program that places every student, upon entrance, with an individual faculty adviser who can best help him or her form a personalized academic plan. An outcome of each academic adviser's individualized guidance is that students come to understand the relationship between a particular discipline and a profession. Students also learn how an arts and sciences major can prepare them especially well for an extensive range of satisfying careers. Although the primary responsibility for setting academic goals and selecting courses rests with the student, the academic adviser fosters an ongoing conversation that cultivates self-reflection and development. The adviser also maintains an advising record for each student.

Students who enter the College of Arts and Sciences with a declared major are matched with a faculty adviser in that department. Undeclared students work individually with an academic adviser to design and journey through a personalized major exploration plan that is uniquely tailored to his or her needs and interests. During the formal advising period each semester, all students in arts and sciences are required to meet with their academic advisers before selecting and registering for courses.

## Career Services

In the College of Arts and Sciences, the assistant dean for career services works with students to explore majors and career interests through individual consultations and group sessions, guide them through a career development process, and provide coaching for resume preparation, employment interviews and graduate school applications. Students can participate in experiential learning through community service as well as internships, part-time and summer employment.

## Degrees in Arts and Sciences

## Bachelor's Degrees

Behavioral Neuroscience
Biochemistry
Biology
Chemistry
Computer Science
Criminal Justice
English
Game Design and Development
Gerontology
History
Independent Majors
Interactive Digital Design
Legal Studies
Mathematics
Philosophy
Political Science
Psychology
Social Services
Sociology
Spanish Language and Literature
Theater

## Independent Majors

The College of Arts and Sciences offers independent majors. A student may design a unique major program to fit his or her individual goals. The responsibility for the planning of such a program rests with the student proposing it, and a proposal for an independent major must contain suitable justification and a coherent curricular plan. The proposal must be submitted to the dean for approval and also must have the approval of a three-member faculty committee, chosen by the student, which will work with the student to plan the program. Independent major proposals should be submitted no later than the first semester of the junior year.

## Combined BS/MS in Biology and Molecular and Cell Biology

The Department of Biological Sciences offers a combined BS/MS program in biology and molecular and cell biology to qualified undergraduates in any of the concentration curricula: molecular and cell biology or physiology and comparative biology.

The MS degree in molecular and cell biology provides an excellent foundation for students intending to pursue studies in professional health care fields and doctoral programs. It also offers a competitive edge for students wishing to pursue a career in biotechnology and biopharmaceutical industries. A minimum cumulative undergraduate GPA of 2.5 and 70 earned credits at Quinnipiac University are required for admission to the graduate program.

Students intending to pursue a combined degree are advised to elect PHY 110/110L and PHY 111/111L by the end of their sophomore year. BIO 282/282L, BIO 346/346L and CHE $315 / 315 \mathrm{~L}$ must be completed by the end of the junior year. BIO 317/317L and BMS 370/370L also are strongly recommended.

Students in the combined BS/MS program complete graduate-level biology courses during their senior year. A maximum of 9 credits may be used to fulfill both undergraduate and graduate requirements. A bachelor of science in biology is granted upon satisfactory completion of all the undergraduate curriculum requirements.

Students applying for admission are strongly encouraged to submit their application during the first semester of the junior year. Interested students should contact the director of the molecular and cell biology graduate program. For further information on the combined BS/MS program, please refer to the graduate molecular and cell biology program. Meeting the minimum admissions standards does not guarantee admission to the program.

## Five-Year Arts and Sciences BA/MAT Program in Elementary Education

This two-degree program leading to a master of arts in teaching degree is designed for any arts and sciences major who maintains a preferred undergraduate GPA of 3.0. Students should make contact with the MAT program director as early as possible for advisement. Students majoring in a science should seek guidance through the chair of the Department of Biological Sciences or Department of Chemistry and Physical Science and the MAT program director upon admission into Quinnipiac University.

## Five-Year Arts and Sciences BA/MAT Program in Secondary Education

This two-degree program leading to a master of arts in teaching degree is designed for Quinnipiac students who wish to earn Connecticut certification to teach biology, chemistry, English, history/social studies, mathematics or Spanish in the middle grades or secondary level. A student interested in entering this program should contact the MAT program director as early as possible for advisement.

## Five-Year Arts and Sciences BA/MBA Program

This program leading to an MBA is designed for outstanding arts and sciences majors at Quinnipiac University. As an undergraduate, a student should make early contact with the dean of arts and sciences for specific direction. Additional information on this program appears on page 180.

## Minors

In addition to major programs, a student may apply to have a minor recorded on his or her transcript. The College of Arts and Sciences offers minors in: anthropology, biology, chemistry, computer science, criminal justice, English, environmental science, fine arts, French, game design and development, history, mathematics, music, philosophy, political science, psychology, sociology, Spanish, studies in the law, theater and theater design and production. Interdisciplinary minors in Asian studies, international studies, Middle Eastern studies, science and values, sports studies, and women's studies also are available (see p. 86). Arts and sciences students may complete a minor in one of the other schools. Through the selection of a minor outside arts and sciences, students can maximize their career or graduate school opportunities while still obtaining the benefits of a flexible arts and sciences education. To declare a minor, a student should see the department chairperson or the faculty member listed for information/advising.

## Department of Biological Sciences

Bachelor of Science in Biology
Molecular and Cell Biology
Physiology and Comparative Biology
Premedical Studies
Combined BS Biology/MS Molecular and
Cell Biology
Minor in Biology
Minor in Environmental Science
The mission of the Department of Biological Sciences is to provide students with the breadth and depth of knowledge in biology that will allow them to: 1) incorporate the biological sciences and its scholarly methodologies into the broad perspectives of an arts and sciences education and their own individual lives; 2 ) continually reconstruct a worldview that is consistent with the current state of scientific knowledge; 3) appreciate the unity of knowledge across disciplinary boundaries, and the ways in which the various fields of knowledge enlighten and illuminate one another; 4) become useful and productive contributors within their chosen professions; 5) continue learning independently throughout their lives; 6) assess, from a critical and analytic perspective, the state of knowledge within a variety of biological subdisciplines, and 7) have at their fingertips the intellectual tools to formulate readily testable hypotheses, design sound experiments, analyze and evaluate data, and draw legitimate conclusions.

## General Information

Programs in the Department of Biological Sciences provide scientific training as part of an arts and sciences education and develop an understanding of the nature of biological systems. Courses furnish a broad scientific background for advanced study in various biological and medical areas. The first two years of each program consist of a core of science and liberal arts courses that permit lateral mobility during those years. Students may be admitted to advanced standing by obtaining satisfactory grades in the Advanced Placement Tests or the College Level Examination Program of the College Entrance Examination Board. Students in all majors in the Department of Biological Sciences must achieve a science GPA of 2.25 (a minimum grade of " C -" is required in all
courses with a "BIO" or "BMS" designation), and an overall GPA of 2.0 to qualify for graduation.

A score of 4 in the AP biology exam is required to receive credit for BIO 101-102 although taking BIO 101 and BIO 102 is highly recommended by the department, regardless of the AP biology score. A score of 3 on the AP biology exam will result in credit being granted for BIO 105-106. BIO 105-106 meets the needs of students in non-science areas, but not students in the biology majors.

## Bachelor of Science in Biology

The BS program in biology provides students with a biological and physical science foundation on which they can build a graduate degree in natural science or enter the fields of medicine, dentistry, veterinary medicine, podiatry or education. Those choosing to end their formal education with the bachelor's degree will have a sufficient level of sophistication in biological science to assume a variety of positions with research institutions, governmental agencies or industry.

The curriculum for the BS in biology allows students to pursue one of two different concentrations (molecular and cell biology or physiology and comparative biology) based on individual preferences and expressed interests. The University Curriculum, biological sciences and physical science core requirements are common components of both concentrations. Advanced courses and electives within each concentration are chosen in consultation with expert faculty advisers.

## BS in Biology Recommended Curriculum

| Course | Title | Credits |
| :--- | :--- | ---: |
| Fall Semester, First Year |  |  |
| BIO 101/101L | General Biology I (for majors) | 4 |
| CHE 110/110L | General Chemistry I with Lab | 4 |
| EN 101 | Freshman Composition (UC) | 3 |
| MA 141 | Quantitative Literacy (UC) | 3 |
| QU 101 | The Individual and the Community | 3 |

Total 17

## Spring Semester, First Year

BIO 102/102L General Biology II with Lab (for majors) 4
CHE 111/111L General Chemistry II with Lab 4
EN $102 \quad$ Freshman Composition (UC)
UC University Curriculum 3
Fall Semester, Second Year
BIO 298 Research Methods in Biology

BIO Biology concentration core/elective* 3-4
CHE 210/210L Organic Chemistry I with Lab 4
QU 201 Seminar on National Community 3
UC University Curriculum 3
Total 15-16
Spring Semester, Second Year
BIO Biology concentration core* 3-4
BIO Biology concentration core/elective* 3-4
CHE 211/211L Organic Chemistry II with Lab 4
UC University Curriculum 3
Total 13-15
Fall Semester, Third Year
BIO Biology concentration core/elective* 3-4
BIO Biology concentration core/elective* 3-4
PHY 110/110L General Physics I with Lab 4
QU 301 Seminar on Global Economy 3
UC University Curriculum 3
Total 16-18

## Spring Semester, Third Year

BIO Biology concentration core/elective* 3-4
BIO Biology concentration core/elective* 3-4
PHY 111/111L General Physics II with Lab 4
Elective 3-4
UC University Curriculum 3
Total 16-19
Fall Semester, Fourth Year
BIO Biology concentration elective* 3-4
BIO Biology concentration elective
(if necessary)* 3-4
BIO Biology non-concentration elective*^ 3-4
UC University Curriculum 3
Elective 3-4
Total 15-19
Spring Semester, Fourth Year
BIO Biology concentration elective* 3-4
BIO Biology non-concentration elective* ${ }^{*}$ 3-4
UC University Curriculum 3
Elective 3-4
Elective (if necessary) 3
Total 15-18
Minimum number of credits required for graduation: 120
*Some biology courses have no laboratory component and are 3-credit rather than 4-credit courses.
^Biology non-concentration elective (6-8 credits): Any BIO or BMS course chosen in consultation with the concentration adviser; 200-level or higher; 3-credit minimum per course.

Initial placement in the English and mathematics courses is determined by examination and an evaluation of high school units presented. Students intending to pursue graduate or professional studies (medicine, dentistry, osteopathy or veterinary medi-
cine) are advised to complete at least one semester of calculus. A minimum of MA 141 is required for graduation. BIO 101 and BIO 102 are required for graduation and may be used to meet the core curriculum's physical and biological sciences requirement. Students intending to pursue studies in professional health care fields are advised to complete additional courses chosen in consultation with their adviser. BIO 298, Research Methods in Biology, is taken during the fall semester of the second year.

## Molecular \& Cell Biology Concentration Required Course Title

## Credits

Complete two of the following courses for 7-8 credits total:
BIO 240 Cellular Communication 3
BIO 317/317L Developmental Biology with Lab 4
BIO 346/346L Cell Physiology with Lab 4
BIO 471/471L Molecular Genetics with Lab 4
Total 7-8
Concentration Electives (choose four)
BIO 240 Cellular Communication 3
BIO 282/282L Genetics with Lab 4
BIO 317/317L Developmental Biology with Lab 4
BIO 329 Neurobiology 3
BIO 346/346L Cell Physiology with Lab 4
BIO 382/382L Human Genetics with Lab 4
BIO 471/471L Molecular Genetics with Lab 4
BIO 498/499 Independent Study in Biology^ 1-4
BMS 370/370L Microbiology with Lab 4
BMS 372/372L Pathogenic Microbiology with Lab 4
BMS 375/375L Immunology with Lab 4
BMS 470/470L Virology with Lab 4
BMS 472/472L Biotechnology with Lab 4
BMS 475/475L Special Topics in Microbiology with Lab 4
BMS 370/370L Microbiology with Lab 4
CHE 315/315L Biochemistry with Lab 4
Total 15-16

| Physiology \& Comparative Biology Concentration |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Required Course Title |  | Credits |
| BIO 223/223L | Invertebrate Zoology |  |
| BIO 227/228 | Comparative Anatomy \& |  |
|  | Physiology I \& II ${ }^{+}$with Labs | 8 |
| or |  |  |
| BIO 211/212 | Human Anatomy \& Physiology I \& II ${ }^{+}$ with Labs | 8 |

Physiology \& Comparative Biology Concentration
Required Course Title
Credits
BIO 223/223L Invertebrate Zoology

Total 12
Concentration Electives (choose four)
BIO 218/218L Vertebrate Natural History with Lab
BIO 328/328L Human Clinical Parasitology with Lab

| BIO 329 | Neurobiology | 3 |
| :--- | :--- | ---: |
| BIO 350 | Cardiovascular Physiology | 3 |
| BIO 352/352L | Botany with Lab | 4 |
| BIO 498/499 | Independent Study in Biology^ | $1-4$ |
| BMS 318 | Pathophysiology | 3 |
| BMS 332/332L | Histology with Lab | 4 |
| BMS 370/370L | Microbiology with Lab | 4 |
| CHE 315/315L | Biochemistry with Lab | 4 |

Total 14-16
${ }^{+}$In consideration of the entrance requirements, premedical students may opt to replace Comparative Anatomy \& Physiology (BIO 227 and BIO 228) and the corresponding labs with Human Anatomy and Physiology (BIO 211 and BIO 212) and the corresponding labs.
$\wedge$ Independent Study in Biology:

1. Within any student's declared concentration, he/she may take a maximum of 4 credits of Independent Study/Research (BIO 498 or BIO 499) to be counted as an "elective" within the concentration.
2. Within any student's declared concentration, he/she may take an additional 1-4 credits of Independent Study/Research to meet the maximum of 8 credits allowed provided he/she receives preapproval from the concentration faculty. The additional 4 credits can be applied only to the "open electives."
3. If a student declared in one concentration wishes to take an additional 1-4 credits within another concentration, he/she may do so. These credits can be counted only as "open electives." The credits may not count as "biology nonconcentration electives."

## Honors in Biology

1. An overall quality point average of 3.0 or better is required. An average of 3.5 in biology is required.
2. Students should announce in writing their intention to pursue honors in biology to both the department chair and academic adviser, no later than May 1 in the spring term of their junior year.
3. Departmental honors students are required to take BIO 399H (Honors Research in Biological Sciences).
4. Students must take an oral examination in areas related to the proposed student project, which is administered by a departmental committee composed of a minimum of three members of this department, including the sponsor of the project and the department chairman (who serves as committee chairman). Note: It is the student's responsibility to obtain a sponsor for his or her project prior to this examination.
5. Successful completion of a senior research project (for example, BIO 3994 H is required. The project must include: 1) a written proposal;
2) the actual completion of an approved research project under the supervision and sponsorship of a full-time faculty member in the Department of Biological Sciences or another faculty member approved by the department chair; 3) the presentation of the outcome of the research project in the written format approved by the department; 4) and a seminar presentation of the outcome of the research project.
6. Evidence of excellence in speaking and writing skills must be documented by term papers, English theme papers, oral presentation(s) and grades, as determined by the committee.
7. The actual granting of honors in biology is determined by all the full-time faculty in the Department of Biological Sciences.
A list of the faculty of the department and their research interests is available to each student. The list consists of faculty members' office locations, major fields of interest, current research, and/or current listings of research publications. Copies of such publications are available on reserve in the library.

## Premedical Studies Program

Students majoring in biology may fully participate in the premedical studies program. The curriculum in this degree program and its concentrations can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.


## Combined BS/MS in Biology and Molecular and Cell Biology

The Department of Biological Sciences offers a combined BS/MS program in biology and molecular and cell biology to qualified undergraduates in any of the concentration curricula: molecular and cell biology or physiology and comparative biology. The MS degree in molecular and cell biology provides an excellent foundation for students intending to pursue studies in professional health care fields and doctoral programs. It also offers a competitive edge for students wishing to pursue a career in biotechnology and biopharmaceutical industries. A minimum cumulative undergraduate GPA of 2.5 and 70 earned credits at Quinnipiac University are required for admission to the graduate program.

Students intending to pursue a combined degree are advised to elect PHY 110/110L and PHY 111/111L by the end of their sophomore year. BIO 282/282L, BIO $346 / 346 \mathrm{~L}$ and CHE 315/315L must be completed by the end of the junior year. BIO 317/317L and BMS 370/370L also are strongly recommended. Students in the combined BS/MS program complete graduatelevel biology courses during their senior year. A maximum of 9 credits may be used to fulfill both undergraduate and graduate requirements.

A bachelor of science in biology is granted upon satisfactory completion of all the undergraduate curriculum requirements. Students applying for admission are strongly encouraged to submit their application during the first semester of the junior year. Interested students should contact the director of the molecular and cell biology graduate program. For further information on the combined BS/MS program, please refer to the graduate molecular and cell biology program. Meeting the minimum admissions standards does not guarantee admission to the program.

## Minor in Biology

A minor in biology requires the completion of at least 20 credits (including five laboratory courses beyond BIO 101-102 or BIO 105-106) with a minimum cumulative GPA of 2.0. A minimum grade of C - must be achieved in all courses for the minor. No more than 8 credits can be part of other major or minor programs. Only one course with the "BMS" designation can be applied to the
minor. Under special circumstances, the chair of the department may approve minors with fewer credits or permit other exceptions. Students who wish to minor in biology are required to consult with the chair to design a minor that best meets their needs.

## Minor in Environmental Science

The environmental science minor is intended for students majoring in one of the sciences at Quinnipiac University who may be planning a career in the environmental field. The purpose of the environmental science minor is to provide students with an opportunity to study ecosystems and understand environmental issues and the impact of human activity on those systems. Students who complete this minor are well prepared for graduate work or entry-level jobs working with environmental consulting firms, analytical laboratories, government agencies, or environmental advocacy or educational groups. The program consists of a minimum of 20 credits of biology with a minimum cumulative GPA of 2.0. A minimum grade of C - must be achieved in all courses for the minor, distributed between 12 credits of required courses and 8 credits of elective courses consistent with the following
specifications:

$$
\begin{array}{lll}
\text { Course } & \text { Title } & \text { Credits }
\end{array}
$$

Required Courses
BIO 352/352L Botany with Lab
BIO 353/353L General Ecology with Lab
BIO 358/358L Human Ecology with Lab
Electives (select two of the courses listed)
BIO 326/326L Animal Parasitology with Lab
BIO 351/351L Natural History of New England with Lab
BIO 354/354L Marine Ecology with Lab
BIO 356/356L Freshwater Ecology with Lab
BIO 476/476L Environmental Microbiology with Lab
CHE 215/215LAnalytical Chemistry with Lab

## Bachelor of Science in Behavioral Neuroscience

The behavioral neuroscience major is an interdisciplinary course of study that emphasizes the interaction between the biological and social foundations of behavior. Interested students should refer to the Department of Psychology.

## Department of Chemistry and Physical Science

Bachelor of Science in Chemistry
Bachelor of Science in Biochemistry
Premedical Studies
Minor in Chemistry
The mission of the Department of Chemistry and Physical Science is to provide undergraduate course work in chemistry and the physical sciences in a student-centered, supportive learning environment characterized by small classes with access to faculty and well-equipped laboratory facilities where students can actively engage in the investigative process of science.

For students majoring in chemistry or biochemistry, the department provides an intensive program of study in the major areas of chemistry with an emphasis on developing skills in analytical thinking and problem-solving, evaluation and interpretation of data, effective communication of scientific information, and research methodologies, while also exploring the applications of chemistry that permeate our lives. Sufficient flexibility through open electives allows students to emphasize personal career goals.

Students are prepared for entry-level positions in chemical, pharmaceutical or academic research laboratory settings or in non-traditional settings, which rely on the background and skills that have been acquired. Their education also prepares them for entry into graduate programs of study in chemistry, biochemistry, environmental science, biomedical sciences, pharmacy, secondary education, medicine or law.

The department also provides a chemistry minor program structured to give students a balanced exposure to the major areas of chemistry and opportunities to develop associated skills. Providing this opportunity is an important asset for students studying in other programs, particularly those pursuing careers in the biomedical and biological sciences.

The department also offers courses in chemistry and physics tailored to the support of programs in the basic and health sciences. These programs all have a strong reliance on the ability of students to understand and apply the fundamental concepts of chemistry and physics and to demonstrate clear
analytical thinking and problem-solving skills developed in these courses.

In addition, it is the mission of the department to offer stimulating course work in the physical sciences for non-science majors as part of the University Curriculum so that all students can develop an appreciation of the process of science, engage in scientific investigative experiences, understand the role of science in their everyday lives and be prepared to make informed value judgments in our highly technological society.

## Bachelor of Science in Chemistry or Biochemistry

Initial placement in English and mathematics courses is determined by placement examinations and an evaluation of high school units presented. Students who do not place directly into MA 141 should take MA 140. Mathematics requirements for the chemistry and biochemistry majors include MA 141-142 and MA 275 , which can be used to satisfy UC Quantitative Literacy and UC elective requirements.

Undergraduates enrolled in the chemistry or biochemistry majors must maintain a minimum grade of C in all chemistry, physics and mathematics courses. Any required course not listed in the course description section may be considered for scheduling when the need arises. All 4-credit science courses have a laboratory component. Chemistry electives must be selected with the advice and approval of the department chairperson. Open electives should be selected based upon student interests and career goals from offerings in all schools.

An independent research project chosen by the student and directed by a full-time faculty member in the department or an approved internship is required of all students in these programs. This research project or internship plays a key role for the student in developing a deeper understanding of the chemistry involved, and builds skills necessary to work independently and communicate the results of the work to a group of scientists.
BS in Chemistry Curriculum
(Typical Course Sequence)
Course Title Credits
Fall Semester, First Year ..... 4
EN 101 Freshman Composition (UC) ..... 3
MA $141 \quad$ Calculus of a Single Variable (UC) ..... 3
QU 101 The Individual in the Community ..... 3
UC Social Science ..... 3
Total 16
Spring Semester, First Year
CHE 111 Science (UC) ..... 4
EN $102 \quad$ Freshman Composition (UC) ..... 3
MA 142 UC elective ..... 3
UC Fine Arts ..... 3
UC Social Science ..... 3
Total 16
Fall Semester, Second Year
CHE 210 Organic Chemistry I ..... 4
CHE 215 Analytical Chemistry ..... 4
PHY 110 General Physics I ..... 4
MA 275 UC elective ..... 3
Total 15
Spring Semester, Second Year
CHE 211 Organic Chemistry II ..... 4
PHY 111 General Physics II ..... 4UC Humanities
QU 201 Seminar on National Community3Fall Semester, Third Year
CHE 301 Physical Chemistry I ..... 4
CHE 315 General Biochemistry ..... 4
UC Humanities ..... 3
Elective ..... 3
Total 14
Spring Semester, Third Year
CHE 302 Physical Chemistry II ..... 4
CHE 305 Instrumental Analysis ..... 4
QU 301 Seminar on Global Community ..... 3
Elective ..... 3
Total 14
Fall Semester, Fourth Year
CHE 490 Chemistry Research I ..... 3
CHE 475 Chemistry Seminar I ..... 1
CHE 410 Advanced Inorganic Chemistry ..... 3
CHE Chemistry elective ..... 3-4
Elective ..... 3
Elective ..... 3

| Spring Semester, Fourth Year |  |  |
| :--- | :--- | ---: |
| CHE 491 | Chemistry Research II | 3 |
| CHE 476 | Chemistry Seminar II | 1 |
| CHE | Chemistry elective | $3-4$ |
|  | Elective (if necessary) | $3-9$ |
|  | Total | 14-17 |
|  |  |  |
| Minimum number of credits required for graduation: |  | $\mathbf{1 2 0}$ |


| BS in Biochemistry Curriculum |  |
| :--- | :--- |
| (Typical Course Sequence) |  |
| Course Title |  |

Fall Semester, First Year
UC Science (BIO 101 for majors) 4

CHE 110 General Chemistry I 4
EN $101 \quad$ Freshman Composition (UC) 3
MA 141 Calculus of a Single Variable (UC) 3
QU 101 The Individual in the Community
Total 17
Spring Semester, First Year
UC Science (BI 102 for majors) 4
CHE 111 General Chemistry II 4
EN $102 \quad$ Freshman Composition (UC)
MA 142 UC elective
UC Social Science
Total 17
Fall Semester, Second Year
CHE 210 Organic Chemistry I 4
CHE 215 Analytical Chemistry 4
PHY 110 General Physics I 4
MA 275 UC elective
3
Total 15
Spring Semester, Second Year
CHE 211 Organic Chemistry II 4
PHY 111 General Physics II 4
UC Humanities
QU 201 Seminar on National Community
Fall Semester, Third Year
CHE 301 Physical Chemistry I
CHE 315 General Biochemistry
UC
Humanities
Advanced Biology elective

## Spring Semester, Third Year

CHE 302 Physical Chemistry II
or CHE 304 Biophysical Chemistry
CHE 305 Instrumental Analysis
QU 301 Seminar on Global Community
Advanced Biology elective

## Fall Semester, Fourth Year

CHE 490 Chemistry Research I 3
CHE 475 Chemistry Seminar I 1
CHE 410 Advanced Inorganic Chemistry 3
CHE 316 Intermediate Biochemistry or
or CHE Chemistry elective 3-4
UC Social Science 3
Elective (if necessary) 0-3
Total 13-17
Spring Semester, Fourth Year
CHE 491 Chemistry Research II 3
CHE 476 Chemistry Seminar II 1
Chemistry elective 3-4
UC Fine Arts 3
Elective 3
Elective (if necessary) 0-3
Total 13-17
Minimum number of credits required for graduation: 120
Advanced biology electives for the biochemistry major may be chosen from the following list of suggested electives or similar level biology or biomedical science courses. Check for prerequisites.
BIO 282 Genetics 4
BIO 346 Cell Physiology 4
BMS 370 General Microbiology 4
BMS 375 Immunology 4

## Premedical Studies Program

Students in any major within the Department of Chemistry and Physical Science may fully participate in the premedical studies program. The curriculum in these degree programs can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.

## Chemistry Minor

The highly technical nature of our daily living has increased the need for a working knowledge of chemistry in biological sciences, medical sciences, law, business, government, academia and many more areas. Students majoring in programs other than chemistry can be recognized as having additional proficiency in chemistry by successfully completing this balanced program. Candidates must apply to the chemistry department to enter this program and be enrolled concurrently in a
major undergraduate program. The program consists of a minimum of 24 credits of chemistry distributed between 20 credits of required courses and 4 credits of elective courses consistent with the following specifications: The minimum grade required for each course is a C -.

## Course

Title
Credits
Required
CHE 110/110L
General Chemistry I with Lab
4
CHE 111/111L
General Chemistry II with Lab
4
CHE 210-210/ Organic Chemistry I-II with Lab

CHE 215/215L Analytical Chemistry with Lab
Elective (select one of the courses listed or its equivalent)
CHE 301/301L Physical Chemistry I with Lab 4
CHE 305/305L Instrumental Analysis with Lab
CHE 315/315L General Biochemistry with Lab


## Department of English

## Bachelor of Arts in English <br> Minor in English

The Department of English introduces students to the study of literature, rhetoric and composition, and how reading and writing together actively produce knowledge. The department's mission is to instill a love of language and literature in students by deepening their sense of the reciprocal and complementary relationship between reading and writing. The department views reading and writing as historically and culturally situated and interdependent activities; students develop an increasingly complex sense of what reading and writing entail.

The program in English provides a solid background in literary theory and in the history of literature, rhetoric and writing. Students learn to analyze, interpret and write about literature by studying a variety of literary periods, genres, major authors and rhetorical strategies. The trajectory of the curriculum progresses from the instruction of critical and creative reading techniques and introductory critical analysis in English 101 and 102, to the study of at least four periods of English and American literature, ending with a capstone Senior Seminar in literature.

Classroom instruction follows the belief that a thorough knowledge of literature and a complex understanding of a range of writing strategies are both requisite for graduate study in such fields as education, law and business or employment in English-related areas. The faculty believes that graduating Quinnipiac English majors should be thoroughly grounded in expository and argumentative writing strategies, should know how to read and think carefully about a variety of texts using a variety of critical and theoretical approaches, and should possess the basic skills necessary to conduct research.

The program prepares graduates who-in both their jobs and in their lives-are skilled writers, critical readers and thinkers, and avid students of literature.

## General Information

The Department of English supports four programs: the First-Year Writing program, the English major, the English minor and the MAT in

English. Students usually apply for the major or minor during their freshman year or early in their sophomore year. They apply to the chair of English, Professor Robert Smart (CAS1-320, phone 203-582-3325), who helps them construct their program of study and selects an adviser with whom the student meets periodically. Students in good academic standing are accepted into the major or minor and must maintain a 2.0 grade point average in the major or minor and must satisfy all liberal arts requirements. According to their inclinations and goals, English majors are encouraged to consider a double major or a minor in another field.

The Department of English supports the English Club, open to all Quinnipiac students, and Montage, the undergraduate literary journal. Students who meet the academic criteria can join Sigma Tau Delta, an international honor society for English majors and minors. For further information, please visit the Quinnipiac website.

## Bachelor of Arts in English

The Department of English offers a four-year bachelor's degree program (minimum 39 credits) in English, American and world literatures. In addition, it allows students in other majors to earn a second major or a minor (19 credits). An emphasis on reading, critical thinking, research and writing produces graduates who are well trained to negotiate constantly changing employment opportunities.

## English Major Curriculum

The composition courses (preliminary to the major) impart ways of reading, thinking and writing that are crucial for the successful major. The major program emphasizes a three-pronged approach to understanding the importance of literature: writing, literary theory and criticism, and literary history. These three values are offered in a wide-range of courses including a balance of British, American and world literature, singleauthor courses, specialized thematic and genre courses, interdisciplinary and multicultural courses.

## English Major Requirements <br> (39 credits)

Distribution Requirements Credits
Advanced Composition
One course from the following:
EN 201, EN 202, EN 212, EN 213, EN 214, EN 215
EN 302, EN 305, EN 351
Period British
Two courses from the following:

- One course from Pre-1785: EN 341, EN 345, EN 348, EN 350
- One course from Post-1785: EN 322, EN 355, EN 326


## Period American

Two courses from the following:

- One course must be pre-1865: EN 365, EN 361
- One course must be post-1865: EN 308, EN 373, EN 377, EN 380
Criticism \& Theory
One course from the following:
EN 204 [new]
Shakespeare 3
- EN 343 (preferably in junior or senior year)

Multicultural/Women
One course from the following:
EN 235, EN 265, EN 338, WS 235, WS 338
Senior Seminar
24 credits of the major must be completed before taking this course: EN 460

## English Electives

Four courses from the following:

- Any 200-level or higher English courses

Note: English majors in the master of teaching program must take EN 325. For these students, EN 325 counts as a British period course.

## Concentration in Creative Writing

English majors can earn a concentration in creative writing by completing 15 or more credits in creative writing and contemporary literature courses. Students who earn the concentration in creative writing not only develop their compositional, reading and analytical skills in one or more genres, but they also build a foundation for understanding and utilizing the power of creativity in their professional lives after college. All students wishing to fulfill the requirements for a concentration in creative writing must take the following courses:

- EN 201 (to fulfill the Advanced Composition requirement) (3 credits)
- one 200 -level creative writing course ( 3 credits)
- two 300-level advanced creative writing workshops (6 credits)
- one course in Contemporary/Post-WWII Literature, including but not limited to EN 220, EN 275, EN 308, EN 322 and EN 373 (3 credits)
The 300-level workshop can be repeated once for credit (i.e., a student interested in fiction can take the Advanced Fiction Workshop up to two times). Successful completion of the concentration in creative writing will be indicated on students' transcripts.


## Internships

The English major allows students to pursue 1 -credit, repeatable internships (EN 293) in supervised fieldwork related to writing or reading to investigate career opportunities and to develop professional contacts. Some 3-credit internships are accepted, but are taken in addition to the 39 -credit course requirement. Interested students should see their adviser.

## Honors Program in English

English majors with high overall academic standing and a minimum 3.3 grade point average in the major may seek the recommendation of any English faculty member for admission to EN 470 (Senior Thesis). Students interested in this option should discuss the qualifications and options during the junior year, develop a thesis proposal with the counsel of the recommending instructor, and file an application by the November preceding the graduation date. High achievement in a senior thesis, combined with the English grade point average, may lead to the distinction of honors, high honors, or highest honors in English (distinct from the overall University awards).

## Career Opportunities

English majors (and double majors) have found employment in education, government, the law, public service, management, advertising, journalism, media work, and traditional and desktop publishing. Moreover, the blend of professional talents derived from training in creative thinking, critical reading, logic, organizing projects for presentation, and effective and varied writing, provides English graduates with a special flexibility rare among college graduates and prized by employers.

The English major offers ideal preparation for advanced study in librarianship, Internet
publication and museum studies. In addition, the ability to write with precision, grace and substance is a crucial skill for those students seeking admission to law school. Students pursuing the English major with law school in mind should contact Professor Jessica Hynes, the Quinnipiac prelaw adviser (203-582-3688), and should prepare early to take the LSAT.

## Minor in English

The Department of English offers an English minor (literature track or writing track) of 19 credits beyond the composition courses, EN 101102. Students interested in the English minor apply to the chair of English.

## Who Should Consider the English Minor?

- Students who love reading literature and who wish to foster their writing.
- Students whose advancement in professional careers will depend on sound writing, creative thinking, solid communication skills, and sound critical analysis of ideas presented orally and in writing.
Which Courses Are Required? Literature Track Credits
EN 150 Advanced Revision \& Editing ..... 1
- two 200-level literature courses ..... 6
- four 300 -level literature courses ..... 12
Strongly advised: two period courses EN 343 (Shakespeare)
Writing Track Credits
EN 150 Advanced Revision \& Editing ..... 1
- one 200-level writing course ..... 3
- two 200 or 300-level literature or writing courses ..... 6
- two 300-level writing courses ..... 6
EN 351 Studies in Rhetoric \& Writing ..... 3


## Department of History

Bachelor of Arts in History
Minor in History
The mission of the Department of History is twofold. First, it provides an intensive program of study for students majoring in history. The study of history is a long-established foundation for education since it builds critical skills of gathering and interpreting evidence, crafting arguments, engaging in research, and developing polished presentation skills both written and oral. As a result, students earning a degree in history are prepared to pursue a wide range of career options. Some continue their education in graduate school in the humanities, social sciences, education or law; others pursue careers in public service, business and the arts.

Second, the Department of History provides opportunities for all students at Quinnipiac to familiarize themselves with the past through the study of history across time and around the world. Studying history helps students to appreciate their place in the world through a deeper understanding of the connection between the past and the present, through a better awareness of the variety of human experience, and through a more complete understanding of the rich diversity of cultures.

The faculty regularly reviews and updates the history curriculum to reflect the changing nature of the historical discipline; conducts exit interviews with graduating seniors to assess their experience in the major; and collects and updates survey information from graduates concerning their experiences after graduation.

## Bacbelor of Arts in History

Students normally apply for admission to the major during their sophomore year. Applications must be made to, and approved by, the chairperson. Acceptance is usually approved for all applicants in good standing academically.

Continuation in the major is dependent upon a satisfactory level of performance in all courses, with special reference to work in history. In addition to the college requirements, students majoring in history must meet the following departmental requirements:
CourseCredits
European History ..... 6
American History ..... 6
Global History ..... 6
Four electives 200 level or above ..... 12
HS 303: Historiography \& Historical Methods ..... 3
HS 408: Seminar in History ..... 3
No more than three courses may be at the 100 level

The minimum requirement ( 36 credits) must be met with a grade of C or better in all courses. Note about internships: The department is able to provide student internships with area historical societies and also attempts to place qualified students in credit-related internships with area governmental organizations.

## Minor in History

A minor in history is recorded upon completion of at least 18 credits with a grade of C or better in all courses. The student must select at least 3 credits from each of the following areas of history: American, European and non-Western. At least 9 credits of the 18 must be at the 200 -level or above and should be chosen with the consultation of the department chair.


## Department of Legal Studies

Bachelor of Arts in Legal Studies
Minor in Dispute Resolution
Minor in Studies in the Law
Quinnipiac University's BA in legal studies is designed to provide graduates with the full set of knowledge and skills needed to be successful in the evolving paralegal profession. The classic values of a liberal arts education are added to the critical thinking skills of the legal profession, producing graduates who possess both the traditional breadth of understanding of persons educated in liberal arts, and the depth of paralegal studies.

Quinnipiac's ABA-approved program is planned and taught by lawyers to provide students with a solid grounding in the fundamentals of the legal system. The education focuses on particular core areas of the law and on developing specific legal research, writing and critical thinking skills, all within a framework of the ethical and statutory constraints confronting the paralegal profession.

Through the legal studies internship, students are able to integrate their class work with practical office experience. This combination of theoretical class work with real-world experience, along with exposure to the traditional liberal arts and business courses of Quinnipiac (including a minor in a related area of study), prepares legal studies graduates for a broad range of professional opportunities. Many graduates work as paralegals in the public and private sector and in other law-related positions. Other graduates have continued their education and become attorneys, teachers and business owners.

## Bachelor of Arts in Legal Studies

The legal studies department curriculum, approved by the American Bar Association, prepares students for careers as paralegals by combining a liberal arts education with skills necessary for those interested in law-related employment. A paralegal performs specifically delegated substantive legal work under the supervision of an attorney. While paralegals may not give legal advice to clients or appear in court on their behalf, these highly skilled professionals perform a wide range of tasks and play an integral role in the delivery of legal services.

Legal studies major requirements Required courses ( 25 credits)
Course Title Credits
LE 101 Introduction to the American Legal System 3
LE 208 Legal Research 4
LE 210 Legal Writing 3
LE 301-302 Civil Procedures I \& II 6
LE 480-481 Legal Seminar I \& II 8
Elective courses ( 15 credits)
Five electives chosen from the following. At least 9 credits must be at the 300 level.
LE 115 Criminal Law 3
LE 200 Special Topics 3
LE 224 Sports Law 3
LE 225 Alternative Dispute Resolution 3
LE 250 Gender \& the Law 3
LE 260 Trial Techniques 3
LE 300 Special Topics 3
LE 310 Elder Law 3
LE 311 Administrative Agencies 3
LE 312 Family Law 3
LE 315 Wills, Probate \& Estate Administration 3
LE 320 Land Transfers \& Closing Procedures 3
LE 330 Business Entities 3
LE 340 The Constitution \& the Court 3
LE 345 Intellectual Property 3
LE 350 Federal Indian Law \& Policy 3
LE 360 Mediation 3
LE 370 Negotiation 3

## Additional Requirements

Legal studies majors also must take AC 211, a 200-level English course and an American history course. These may be taken in conjunction with the College of Arts and Sciences requirements. Students must complete a minor in any other department within the University.

LE 480-481, Legal Seminar I and II, are limited to legal studies majors and must be done within the fall and spring of the student's senior year. Students must take LE 101 and LE 208 by the end of their sophomore year to successfully complete the degree requirements within four years.

## Dispute Resolution Minor

The minor in dispute resolution is for students who are interested in learning more about resolving disputes and conflict in both their personal and professional lives. Students study how disputes arise and various means of resolving them,
including negotiation, mediation, arbitration and litigation. The minor teaches students how to use these means to resolve problems on a personal and community basis. Role play activities enable students to partake in actual dispute resolution. The minor is not designed to prepare students to work as paralegals.
Required courses ( 13 credits)
Course Title Credits
LE 101 Introduction to the American Legal System 3
LE 208 Legal Research 4
LE 225 Alternate Dispute Resolution 3
LE 360 Mediation
or LE 370 Negotiation
Elective Courses ( 6 credits)
LE 260 Trial Techniques 3
LE 360 Mediation 3
LE 370 Negotiation 3
LE 301 Civil Litigation I 3
LE 302 Civil Litigation II 3
PS 261 Social Psychology 3
SO 340 Peace \& Conflict Resolution

## Studies in the Law Minor

The Studies in the Law minor is offered for students who are interested in learning more about law and the American legal system. Law is the binding force in society. It reflects the values of society and is constantly changing as society changes. Law deals with issues such as justice, equity and the balance between the rights of individuals and the public interest. Students will learn of their legal rights and responsibilities in today's society. This minor introduces students to the historical and current issues facing society through its legal system. The minor is not designed to prepare students to work as paralegals. Required courses ( 7 credits)
Course Title Credits
LE 101 Introduction to the American Legal System 3
LE 208 Legal Research 4
Elective courses (12 credits):
At least 6 credits must be at the 300-level. Electives may be taken from all legal studies courses, except LE 480/1. Minors may not take LE 480 or LE 481, Legal Seminar I and II.

Students must meet the prerequisites for elective courses.

Other courses that may be used as electives (no more than one from this category)
Course Title Credits

EN 372 Law in Literature 3
LW 121 Business Law \& Society 3
LW 122 The Law of Property, Sales \& Negotiable Instruments
MSS 440 Communications Law 3
PL 202 Logical Reasoning 3
PO 317 International Law 3
PO 353 American Constitutional Law 3
PO 354 Civil Rights I 3
PO 355 Civil Rights II 3
PO 357 Supreme Court \& Foreign Policy 3
PS 383 Psychology \& the Law 3
SO 383 Sociology of Law 3


## Department of Mathematics and Computer Science

Bachelor of Arts in Mathematics
Minor in Mathematics
Bachelor of Science in Computer Science Minor in Computer Science

The disciplines of mathematics and computer science are respectively among of the oldest and newest members of the academy. They share a rich intellectual history encompassing both theoretical and applied work. The mission of the Department of Mathematics and Computer Science is to provide students with a solid understanding of, and appreciation for, both theoretical and applied work.

Our commitment to the intellectual growth of our students applies not only to students majoring in mathematics or computer science, but to all students taking courses in the department. In an increasingly technical and technological world, a solid foundation in these disciplines is becoming more vital to students in all fields.

## Mathematics

Mathematics is the symbolic language of nature. More than numbers and symbols, it encompasses the logic and methodology of reasoning and provides the tools for making decisions, interpreting observations, explaining natural phenomena and solving problems. It is both a subject with widespread applications to the sciences and social sciences and a subject of intrinsic intellectual interest.

All Quinnipiac students should:

- learn the mathematical skills necessary to be successful in their chosen field and become an informed and responsible citizen
- appreciate the relevance of mathematics in society

Students completing a major in mathematics
also should:

- be prepared for employment in mathematicsrelated careers in fields such as business, science, government and education
- be prepared to pursue graduate studies in mathematics
- be able to work collaboratively on mathematical problems and effectively communicate these results
- be exposed to technological innovations used in mathematics
- be able to read and use the current mathematical literature to further their own education


## Computer Science

In our rapidly changing society, technology continues to play an increasingly important role. Much of the new economy is based on advances in computers and communication. The program in computer science emphasizes the synthesis of technological expertise with a traditional arts and sciences education to provide students with the best opportunity for success in one of the fastest growing fields. Solving the problems of tomorrow by learning how to formulate mathematical models of real-life situations, computer science students develop and implement these models and interpret their solutions in terms of the original real-life situation.

## Bachelor of Arts in Mathematics

The mathematics major provides a broad background in undergraduate mathematics that prepares students for graduate study, and for positions in teaching, business and government. The major in mathematics consists of:

| Course | Title | Credits |
| :--- | :--- | ---: |
| MA 141 | Calculus of a Single Variable I (UC) | 3 |
| MA 142 | Calculus of a Single Variable II (UC) | 3 |
| MA 229 | Linear Algebra (UC) | 3 |
| MA 241 | Calculus of Several Variables | 3 |
| MA 242 | Integral Calculus And Differential Equations | 3 |
| MA 305 | Applied Discrete Mathematics | 3 |
| MA 321 | Abstract Algebra | 3 |
| MA 341 | Advanced Calculus | 3 |
| MA 490 | Mathematics Senior Seminar | 3 |

Plus, three electives chosen from the following:
MA 285 Applied Statistics 3
MA 300 Special Topics 3
MA 318 Cryptography 3
MA 361 Numerical Analysis 3
MA 365 Ordinary Differential Equations 3
MA 370 Number Theory 3
MA 371 Mathematical Statistics 3
MA 372 Mathematical Statistics 2
MA 378 Mathematical Modeling 3
MA 400 Special Topics in Mathematics 3
MA 421 Advanced Algebra 3
MA 441 Complex Variables 3
MA 451 Point-Set Topology 3
MA 580 Geometry 3

While students must consult with their major adviser in planning a course of study, the department provides the following recommendations.

- Students interested in teaching should consider MA 285 and MA 580.
- Students interested in statistics should consider MA 371, MA 372 and MA 378.
- Students interested in actuarial studies should consider MA 285, MA 361, MA 371, MA 372, AC 101, EC 111, and CSC 110; and possibly EC 112, FIN 201, FIN 310, CIS 212.


## Minor in Mathematics

To complete a minor in mathematics, a student is required to complete six courses, including MA 141, MA 142, MA 229, and three electives chosen in consultation with the department chairperson. At least one of the three electives must be at the $300-\mathrm{level}$. Courses numbered below MA 141 may be approved at the discretion of the department chairperson.

## Bachelor of Science in Computer Science

The computer science major in the College of Arts and Sciences offers a foundation of study in computer science within the framework of a traditional liberal arts education. The major requires students to complete a core of 10 courses ( 29 credits) and four upper-division electives in computer science and mathematics. Note: a C- or better is required for all departmental prerequisites. The core requirements are:

## Course Title

CSC 110 Programming \& Problem Solving 4
CSC 111 Data Structures \& Abstraction 4
CSC 205 Introduction to Discrete Mathematics 3
or MA 305 Applied Discrete Mathematics
CSC 210 Computer Architecture \& Organization 4
CSC 215 Algorithm Design \& Analysis 3
CSC 225 Introduction to Software Development 3
CSC 310 Operating Systems \& Systems Programming 3
CSC 491 Senior Project $1 \quad 1$
CSC 492 Senior Project $2 \quad 1$
MA $141 \quad$ Calculus of a Single Variable 3
or MA 229 Linear Algebra

## The electives are chosen from the following list:

CSC 318 Cryptography ..... 3

CSC 320 Compilers
3

CSC 325 Database Systems 3
CSC 340 Networking \& Distributed Processing 3
CSC 345 Computer Graphics 3
CSC 350 Intelligent Systems 3
CSC 355 Programming Language Concepts 3
CSC 361 Numerical Analysis 3
CSC 375 Advanced Topics in Computer Science 3
Note: CSC 375 may be repeated for credit if topics are different.

## Minor in Computer Science

To complete a minor in computer science, a student is required to take a total of six courses (20 or 21 credits), including CSC 110, CSC 111, either CSC 205 or MA 305, and three additional courses in computer science at the 200 level or above, to be approved by the chair of the Department of Mathematics and Computer Science. These additional courses must include either CSC 210 or CSC 215 (or both), and at least one computer science course at the 300 level. The following computer science courses are applicable toward the minor:

Course

Title

Credits

CSC 110 Programming \& Problem Solving 4
CSC 111 Data Structures \& Abstraction 4
$\begin{array}{lll}\text { CSC 205 } & \text { Introduction to Discrete Mathematics } \\ \text { or MA 305 } & \text { Applied Discrete Mathematics } & 3\end{array}$
CSC 210 Computer Architecture \& Organization 4
CSC 215 Algorithm Design \& Analysis 3
CSC 225 Introduction to Software Development 3
CSC 310 Operating Systems \& Systems Programming3
CSC 318 Cryptography 3
CSC 320 Compilers 3
CSC 325 Database Systems 3
CSC 340 Networking \& Distributed Processing 3
CSC 345 Computer Graphics 3
CSC 350 Intelligent Systems 3
CSC 355 Programming Languages Concepts 3
CSC 361 Numerical Analysis 3
CSC 375 Advanced Topics in Computer Science 3

## Department of Modern Languages

Bachelor of Arts in Spanish Language and Literature Minor in French
Minor in Spanish
The Department of Modern Languages is dedicated to the study of selected languages and aspects of their related cultures. Coverage varies depending on the language. The department offers a major in Spanish Language and Literature and minors in Spanish and French. It also offers instruction in German and Italian through the intermediate level, and instruction in Chinese, Japanese, Hebrew and Arabic through the elementary level.

The study of modern languages is a valuable entry point into parts of the world that use such languages. Our students develop effective communication skills as well as cultural critical thinking and knowledge commensurate with the level of study achieved. In this way, the Department of Modern Languages contributes to their educational foundation for a changing world of diverse cultures and people.

## Bachelor of Arts in Spanish Language and Literature

In addition to major cultural benefits, the study of how important populations outside and within our borders communicate from day to day enhances the individual's value in the workplace.

The program has three components: Spanish language (written and oral); culture of Spain and Latin America; and major literary works in Spanish.

Students undertaking the Spanish major are prepared for careers dependent in part on facility with the language and familiarity with the culture. These include employment in international business, journalism and mass communications, health care, government, education, criminal justice and law, among others. The Spanish major requires completion of 36 credits, with a grade of C or higher. At least 18 credits of the 36 credits required for the major must be completed on campus.

Double majors are encouraged.

## Spanish Major (36 credits)

1. Written and oral fluency in Spanish (9 credits)

Demonstrated by completing the following courses or their equivalent:

| Course | Title | Credits |
| :--- | :--- | ---: |
| SP 301 | Advanced Spanish I | 3 |
| SP 302 | Advanced Spanish II | 3 |
| SP 312* | Advanced Spanish Conversation | 3 |
| *This course | might be waived for students with demonstrated |  |
| proficiency in oral Spanish—those students would take 3 |  |  |
| additional credits in component 2 or 3 |  |  |

2. Cultural literacy ( 12 credits), including a familiarity with Hispanic cultures and fine arts, historical and sociopolitical matters, and/or linguistics.
Demonstrated by completing 12 credits in courses on Spanish culture or Spanish American culture taught in Spanish.

## Possible courses include:

SP 343 Culture of Spain 3
SP 370 History of the Romance Languages 3
SP 373 Latin American Culture I 3
SP 374 Latin American Culture II 3
SP 376 Spanish Caribbean 3
3. Knowledge of major works of literature written in
Spanish (12 credits)

Demonstrated by completing 12 credits in courses on
Spanish or Spanish-American literature taught in Spanish.
Possible courses include:
SP 317 Approaches to Literary Genres 3
SP 321 Masterpieces of Spanish Literature 3
SP 328 Spanish-American Literature from 3
Conquest to 1880
SP 329 Spanish-American Literature from 3
1880 to the Present
SP 335 19th-Century Literature of Spain 3
SP 348 Spanish Drama \& Poetry of the Golden Age 3
SP 371 Contemporary Literature in Spanish 3
4. SP 450 Senior Seminar 3

## Internships

The department strongly advocates off-campus experience communicating in Spanish. Internships in area organizations such as radio and television stations, health care facilities, educational institutions and inner-city social work reinforce classroom practice.

## Honor Society

The department rewards students who do outstanding work in Spanish language courses with membership in Sigma Delta Pi, the national Spanish language honor society.

## Language Placement

Students who continue the study of a foreign language begun prior to college must take a placement test to be placed at the course level for which they qualify.

## Study Abroad

Study abroad, especially for students enrolled in the appropriate major/minor program, is encouraged. Quinnipiac facilitates organized opportunities for study abroad, and accepts relevant credit from colleges and universities abroad. (See Office of Multicultural and Global Education for additional information).

## Minor in French or Spanish

French: Opens up a worldwide culture by means of intensive language study. To include: six courses, at least one at the $300-\mathrm{level}$ ( 18 credits). In all courses for the minor, a grade of C or higher must be achieved. At least 9 credits must be taken on campus.

Spanish: Offers the student a solid foundation in Spanish and a well-rounded entry to the Spanishspeaking cultures with practical benefits in travel and work. (18 credits) To include: six courses, all of which must be taught in Spanish. At least two of the six courses must be at the 300 level. In all courses for the minor a grade of C or higher must be achieved. Independent studies may not count toward minor. At least 9 credits must be taken on campus.


# Department of Philosophy and Political Science 

Bachelor of Arts in Philosophy
Bachelor of Arts in Political Science
Minor in Philosophy
Minor in Political Science
The mission of the Department of Philosophy and Political Science is to develop educated students who are responsible for recognizing and respecting diverse worldviews, capable of evaluating systems of thought, oppression and power in communities, and motivated to engage in personal and social action.

The department supports programs in philosophy and political science: each provides a balanced offering of courses that offer both a broad overview of each discipline and the opportunity to focus more specifically in special topic areas. The department also is committed to experiential learning, and offers opportunities to study both philosophy and political science topics in ways that allow for a personal engagement with the topic area through study abroad, seminars in Washington, D.C., Service Learning courses and internship opportunities, and close collaboration with the Albert Schweitzer Institute at Quinnipiac.

The major in political science fulfills the department's mission by providing courses that balance social scientific analysis with a focus on the politics and values of community. Students learn to become aware and informed of political processes and power, evaluate and construct logical accounts of political and social causation; take part in the process of social inquiry; and reflect on immediate experiences in social, political and governmental activities. Students engage in the systematic analysis of politics in the areas of political theory, comparative politics, international relations and American government. Students complete the major with a senior seminar in which they engage major questions in political science and develop a sustained, independently conceived contribution to those questions in the form of a senior thesis.

Philosophy is an ancient project, but one that continues to evolve as humans attempt to respond ethically to challenges in the coming century: peace, environmental sustainability, globalization,
technology, the needs for health and security, and the yearning for love and justice. The philosophy major is structured to equip students with the conceptual tools and techniques of inquiry necessary to arrive at thoughtful responses to the world's challenges. Students learn to reflect critically, ethically and holistically on the significance of these tools and techniques to their own lives and to the world they are about to inherit. Students develop analytical and research skills in philosophical inquiry as they explore the history of philosophy and the current status of the main problems in epistemology, metaphysics and ethics. Students complete the major with a senior seminar in which they isolate and define a specific philosophical question that they explore in a senior thesis.

The department offers minors in philosophy and political science that are tailored to complement a student's major field of study and support a variety of multidisciplinary minor programs including women's studies, international studies, Latin American studies, European Union studies, and Middle East studies.

## Bachelor of Arts in Philosophy

The BA in philosophy requires the completion of 36 credits distributed as follows, with a minimum grade of C in all courses. No more than 6 credits of independent study (PL 299) may count toward completion of the major.

## Core requirements (18 credits)

Course Title Credits

PL 101 Introduction to Philosophy 3
PL 202 Logical Reasoning 3
PL 220 Ethics \& Human Values 3
PL 332 Ancient Philosophy 3
PL 333 Modern Philosophy 3
PL 401 Senior Seminar 3
Electives (18 credits)
Six philosophy or cognate courses
Philosophy courses:
PL 200 Special Topics in Philosophy
PL 214 American Philosophy
PL 222 Ethics in Biomedical Research
$\begin{array}{lll}\text { PL 222 } & \text { Ethics in Biomedical Research } & 3 \\ \text { PL } 225 & \text { Social \& Political Philosophy } & 3\end{array}$
PL 324 Philosophies of Health, Healing \& Medicine
PL 235 Philosophy of Science
PL 236 Philosophy of Language

PL 238
PL 240
Philosophies of the Future
PL 250 Phlosophy of Sport 3
PL 250 Philosophy \& Art 3
PL 265 Living Religions of the World 3
PL266 Non-Western Philosophy 3
PL 267 Philosophy of Religion 3
PL 300 Special Topics in Philosophy 3
PL 320 Thought \& Work of Albert Schweitzer 3
PL 330 Philosophy \& Gender 3
PL 331 Philosophy of Humor 3
PL 334 Medieval Philosophy 3
PL 335 Contemporary Philosophy 3
PL 336 Philosophy of History 3
PL 337 Human Rights: Theory \& Practice 3
PL 338 Paradoxes 3
PL 340 Philosophy of Sex \& Love 3
PL 367 Evil \& Suffering 3
PL 368 Life \& Life after Death 3
Cognate courses: In addition to philosophy courses, a student may count up to two of the following courses toward completion of the philosophy major:
CSC 350 Intelligent Systems 3
PO 215 Political Theory 3
PO 216 American Political Thought 3
P0 315 Democratic Theory \& Practice 3
SO 201 Sociological Theory 3

## Bachelor of Arts in Political Science

The BA in political science requires the completion of 36 credits distributed as follows, with a minimum grade of C in all courses. No more than 6 credits of internship (PO 295, PO 395) may count toward completion of the major:
Core requirements (18 credits):
Course Title Credits
$\begin{array}{ll}\text { PO } 101 \text { Introduction to Political Science: Justice, } \\ & \text { Politics \& Power }\end{array}$
P0 131 Introduction to American Government \&
P0 201 Political Inquiry 3
PO 211 Introduction to International Relations 3
PO 215 Political Theory 3
PO 408 Senior Seminar 3
Electives ( 15 credits)
Five political science or cognate courses:
Political science courses:
PO 216 American Political Thought 3
PO 218 Politics of Health 3
PO 219 Women \& Political Thought 3
PO 221 Introduction to Latin America 3

## PO 231

Elections and Political Parties
PO 245
PO 247
PO 270
PO 280

## PO 287

## PO 299

PO 311
PO 315
PO 317

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\text { PO } 318
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PO 321
PO 325
PO 331
PO 332
PO 334
PO 333

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\text { PO } 348
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PO 350
PO 353
PO 354
PO 355
PO 357
PO 360
PO 365

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\text { PO } 390
$$

P0 399
PO 499
International Political Economy

3
3
Actors \& Processes in U.S. Foreign Policy 3
State \& Local Government
Congress \& the Presidency 3
Women \& Public Policy 3
Independent Study in Political Science 3
Topics in International Relations 3
Democratic Theory \& Practice 3
International Law 3
Development of International Organizations 3
Comparative Government 3
Political Psychology \& Public Opinion 3
Topics in Comparative Government 3
European Politics 3
Topics in African Politics 3
Middle Eastern History \& Politics 3
Political Communication 3
Topics in Political Theory 3
American Constitutional Law 3
Civil Rights \& Liberties I 3
Civil Rights \& Liberties II 3
Supreme Court \& Foreign Policy 3
Topics in American Government 3
Inside Washington, D.C. 3
Politics \& Urban Change 3
Intermediate Independent Study in
Political Science
Advanced Independent Study in Political Science
Cognate courses: In addition to political science courses, a student may count up to two of the following courses toward completion of the political science major:
IB 201 International Business
PS 261 Social Psychology
SO 264 Social Welfare Institutions 3
SO 285 Protest \& Change 3
SO 340 Peace \& Conflict Resolution 3

## Experiential Requirement

PO 395 Advanced Internship (3-6 credits) or equivalent approved by the department. Students should plan with their academic advisers early to complete this requirement before the start of their senior year. With department approval, PO 395 may be substituted with one of the following: - A political science course taken in the study abroad program;

- A political science course taken in the

Washington, D.C., program;

- A service learning course in any discipline (must have "SL" designation).


## Portfolio Requirement

In their senior year, students assemble a portfolio of representative academic work done in political science. This portfolio includes the senior thesis, an internship paper (or equivalent), and other key assignments.

## Minor in Philosophy

This minor in philosophy offers an adventure in thinking and talking about our own ideas as well as those of great philosophers, past and present, with reference to the moral life, power and wealth, and man's relation to nature and the future of the planet. To include: PL 101 and five courses in philosophy (18 credits).

## Minor in Political Science

A minor in political science is awarded upon completion of 18 credits with a grade of C or better. At least 6 credits must be earned at the 300 level or above. No more than 3 credits of internship in political science (PO 295 or PO 395) may count toward completion of the minor.

## Washington, D.C., Program

The Washington, D.C., semester programs are multidisciplinary, experiential learning programs that bring students from around the nation and the world to semester-length internships, research projects and seminars in the nation's capitol. Quinnipiac students must have a 3.0 GPA or better to be eligible, and they should not be under any judicial sanctions. Students may have the GPA requirement waived by application to the associate vice president for academic affairs. (See p. 47 for details.)

## Department of Psychology

Bachelor of Arts in Psychology
Bachelor of Science in Behavioral Neuroscience
Premedical Studies
Minor in Psychology
The mission of the Department of Psychology is to introduce students to the broad field of scientific psychology while offering them an education in the true liberal arts tradition. Many students begin by assuming that psychology consists primarily of clinical psychology, but they soon learn it includes many other specialties, such as industrial/organizational, developmental, cognitive, physiological and more. Students study psychology from several vantage points: as a natural science, as a social science and as an applied science. In this way, students come to appreciate the complexity of the field.

The psychology faculty members are committed to helping students become more sophisticated readers of scientific texts, more effective writers and more articulate speakers. These skills are linked to the development of critical thinking, a primary goal of the faculty. Courses require students to read primary research publications, to write in expository style and to speak their minds. Students engage in these activities as a way to learn about different kinds of research and about competing theories. The faculty prides itself on the way it prepares students to think analytically and express themselves clearly.

In both majors, the BA in psychology and the BS in behavioral neuroscience, the department offers preparation for admission to graduate and professional schools and employment after graduation. All students learn a variety of useful skills in addition to those described above. They learn to design and conduct research, analyze data using statistical software and use academic search engines. Students learn the importance of first impressions and how to behave professionally. They also learn how to be self disciplined; all seniors complete a substantial piece of scholarly work in the form of a thesis. The psychology program is designed to produce independent thinkers and lifelong learners.

## Bachelor of Arts in Psychology

Students seeking a BA in psychology must take a set of courses that emphasize scientific reasoning. After taking PS 101, all majors take PS 206, 307, 308, 309 and 409. PS 206 and PS 307 are taken concurrently followed by PS 308 in a subsequent semester. PS 309 and PS 409 must be taken in the senior year. In each of the following sequence courses, students must earn a grade of C- or higher before moving on to the next course: PS 206, PS 307, PS 308. In addition, students must maintain a psychology GPA that is above 2.0 . PS 409, Senior Seminar; PS 409 must be taken as a seminar during the regular academic year.

For breadth, all majors are required to take two psychology courses from the category of natural science (PS 233, PS 251, PS 252, PS 354), two from social science (PS 232, PS 236, PS 261, PS 262, PS 272) and one from applied science (PS 242, PS 250, PS 265, PS 311, PS 325, PS 371, PS 383). In addition, two psychology electives are required, one at the 200 -level and one at the 300-level.

Psychology majors also have the opportunity to engage in supervised fieldwork and intensive study within one of two concentrations.

## Human Services Concentration

Students may elect to enroll in the human services program within the psychology major. The program prepares students for careers in human service and provides the basis for graduate work in fields such as social work, counseling and school psychology.

HS students must take PS 272, PS 371, PS 391, PS 393 and PS 394.

The HS program emphasizes:

1. Mental health fields as possible careers.
2. Conceptions of mental illness and the history of therapeutic methods.
3. Counseling and other treatment techniques.

## Industrial/Organizational Psychology Concentration

Students may elect to enroll in the industrial/organizational psychology program within the psychology major. The program exposes students to career possibilities in I/O psychology areas and provides the basis for further study in fields such as I/O psychology and management.

I/O psychology students must take PS 265, PS 366, PS 367 and PS 397.

The I/O Psychology program emphasizes:

1. The traditional research and practice of industrial/organizational psychology.
2. Using psychological principles to study and improve working conditions.
3. Mindfulness of the changing nature of work and the ability of the field to make innovations to match such changes.

## Bachelor of Science in Behavioral Neuroscience

Behavioral neuroscience is an interdisciplinary field that studies brain and behavior in a multifaceted and integrative way. The behavioral neuroscience major is course of study that emphasizes the interaction between the psychological and biological foundations of behavior. Behavioral neuroscience majors choose one of two tracks (natural science or psychological science) based on individual goals and interests.

The natural science track is a science-intensive program that provides training to students who have primary interests in the biological sciences as applied to psychology and behavior.

The psychological science track includes a core of courses outside of psychology in biology, chemistry and physics, but is more psychologyintensive than the natural science track. This track would be appropriate those who are most interested in psychology as a discipline, but want to focus their studies on those aspects of psychology that are most directly related to physiology and brain function, and how they relate to behavior.

Students in both tracks would be prepared for entry to graduate programs or employment in behavioral neuroscience and related fields.

## BS in Behavioral Neuroscience:

## Natural Science Track

Students on the natural science track must complete requirements for the University Curriculum, a science core, a biology and chemistry core, and a psychology core.

The University Curriculum includes: QU 101, QU 201 and QU 301; EN 101 and EN 102; MA 140 and MA 141; two courses in the sciences (usually BIO 101 and BIO 102); two courses in the social sciences (usually psychology
courses); two courses in the humanities; one course in fine arts; and two UC electives (usually CHE 110 and CHE 111).

The science core includes: BIO 101/101L, BIO 102/102L, CHE 110/110L, CHE 111/111L, CHE 210/210L, CHE 211/211L, PHY 110/110L and PHY 111/111L.

The biology and chemistry core includes BIO $211 / 211 \mathrm{~L}$ or $227 / 227 \mathrm{~L}$, BIO $212 / 212 \mathrm{~L}$ or 228/228L, BIO 329, BIO 346/346L, CHE 315/315L.

The psychology sequence courses include: PS 101, PS 206, PS 307/307L, PS 308/308L, PS 309, PS 409.

The psychology content courses include: PS 233, PS 252, PS 352, PS 354, and PS 357.

Behavioral neuroscience majors normally complete QU 101, EN 101/EN 102, MA 140, BIO 101/BIO 102, CHE 110/CHE 111 and
PS 101 in their first year. All majors are encouraged to work closely with their academic adviser to plan their progress through the major.

## Premedical Studies Program

Students majoring in the natural science track of behavioral neuroscience may fully participate in the premedical studies program. The curriculum in this degree program can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.

## BS in Behavioral Neuroscience: Psychological Science Track

Students on the psychological science track must complete requirements for the University Curriculum, a science core, a biology and chemistry core, and a psychology core.

The University Curriculum includes: QU 101, QU 201 and QU 301; EN 101 and EN 102; MA 140 and MA 141; two courses in the social sciences (usually psychology courses); two courses in the humanities; one course in fine arts; and two UC electives (usually CHE 110 and CHE 111).

The science core includes: BIO 101/101L, BIO 102/102L, CHE 110/110L, CHE 111/111L, PHY 110/110L and PHY 111/111L.

The biology and chemistry core includes BIO 211/211L, BIO 212/212L, BIO 240 and BIO 329.

The psychology sequence courses include: PS 101, PS 206, PS 307/307L, PS 308/308L, PS 309 and PS 409.

The psychology content courses include: PS 233, PS 252, PS 352, PS 354, PS 357 and three PS electives.

Behavioral neuroscience majors normally complete QU 101, EN 101/EN 102, MA 140, BIO 101/BIO 102, CHE 110/CHE 111 and PS 101 in their first year. All majors are encouraged to work closely with their academic adviser to plan their progress through the major.

## Minor in Psychology

Students wishing to minor take 18 credits in psychology. Course selection should be based on the student's interest and goals. However, the following are reserved for majors only: PS 206, 307, 308, 309, 409 and internship courses.

## Department of Sociology

Bachelor of Arts in Criminal Justice
Bachelor of Arts in Gerontology
Bachelor of Arts in Social Services
Bachelor of Arts in Sociology
Minor in Anthropology
Minor in Criminal Justice
Minor in Gerontology
Minor in Sociology
The Department of Sociology offers four undergraduate majors, including a degree in sociology-the traditional discipline-and three sub-disciplines: criminal justice, gerontology and social services. All majors in the department share common goals: to provide students with a thorough understanding of the social factors that influence human behavior and to offer students the tools to continue their education in graduate school or assume careers in our rapidly changing social institutions. In each of the four degree programs, student learning is carried out through an integration of theoretical course work in the classroom and applied fieldwork in the community. Graduates of the department are currently represented in careers such as teaching, law enforcement, social work, health care, law,
corrections, public administration, medicine and public policy.

The program in social services integrates a traditional liberal arts education with the specialized training and field background that a student will find helpful in pursuit of a career in the social services. Each student's education occurs both in the classroom and in community agencies. The program -both in the classroom and out-is designed to acquaint students with the nature of social problems, examine how organizations deal with these problems, learn about the people who are being served, and discuss the major policy choices available to society. Students are prepared to enter careers in the social service arena or to continue their education in fields such as social work, criminal justice and public administration.

The state-licensed program in gerontology prepares students to work for and with older Americans. The interdisciplinary curriculum provides background in such additional fields as sociology, psychology, anthropology, health administration, and biology, all of which are relevant to the study of aging. Through a combination of learning in the classroom and in the community, students receive a broad understanding of the aged in today's society.

The program in criminal justice educates students in a wide range of issues on the social nature of crime and on the strategies and policies of social control. The interdisciplinary curriculum draws not only from criminal justice studies, but from sociology, psychology and legal studies as well. The integration of a liberal arts education and specialized training offers students a solid background in criminal justice. Students are prepared to enter careers in a variety of criminal justice settings or to continue their education in fields such as criminal justice, law, social work or public administration.

Each of these programs has at least one required internship in the community, in widely varying sites that include governmental agencies, health-related settings, public school systems, probation offices, women's shelters, nursing homes, hospital emergency rooms, police departments, substance abuse facilities, senior centers, and community homes for the developmentally disabled, to name only a few. Career opportunities for graduates are just as varied.

The student who chooses to major in sociology, social services, gerontology or criminal justice must confer with the department chairperson at an early date to plan the program in the major.

## Bachelor of Arts in Criminal Justice

This distinctive criminal justice degree program offers students a well-integrated education, placing criminal and deviant behavior within a wider sociological context. Students are exposed to courses ranging from crime response philosophy to public policy in criminal justice. Carefully structured internships assure students of practical applications of theoretical material. Students are prepared to continue their education or assume careers in law enforcement, corrections, law, social work, public administration, teaching and international peacekeeping.

## Requirements (37 credits)

1. Orientation to Criminal Justice (CJ 205), Introduction to Sociology (SO 101), Crime \& Society (CJ 283), Criminal Law (LE 115), Criminal Justice Systems (CJ 335), Research Methods in Criminal Justice (CJ 381) and Senior Seminar (CJ 385).
2. One internship in the community (CJ 392) is required.
3. The opportunity for an optional second internship is available.
4. One or two crime typologies courses* from the following:

Course Title Credits
CJ 232 Women in the CJ System 3
CJ 240 Organized Crime 3
CJ 242 Race, Crime \& Justice 3
CJ $250 \quad$ Youth Crime 3
CJ 271 Public Order Crime 3
5. One or two criminal justice in practice courses* from the following:
CJ 241 Police \& Policing 3
CJ 243 Investigative Techniques 3
CJ 251 Probation, Parole \& Community Corrections 3
CJ 261 Prisons \& Jails 3
*Students need a total of 9 credits from crime typologies and criminal justice in practice courses. They may take one from crime typologies and two from criminal justice in practice or vice versa.
6. Two courses from the following advanced-level courses:

CJ/SO 241 Racial \& Ethnic Groups 3
SO 244 Social Stratification 3
CJ/SO 260 Social Control \& Deviance 3
CJ 300 Special Topics 3
CJ 330 Perspectives on Violence 3
CJ 333 Drugs, Alcohol \& Society 3
CJ $340 \quad$ Practicum in Alternatives to Violence 3
CJ 343 Forensic Issues in Law Enforcement 3
CJ 353 Sexual Violence 3

Crime \& the Media
Violent Offenders: Assessment \& Treatment
CJ 370 Constitution, Ethics \& Policing

## Bachelor of Arts in Gerontology

Quinnipiac is one of the few universities to offer an undergraduate major that anticipates one of the growing realities in our society: the rise in the number of older Americans. Because the effects of an aging population are so far-reaching, the program is based on interdisciplinary studies, including courses from sociology, psychology, biology, health administration and law.
Gerontology majors also complete two semesterlong internships in public or private agencies involved directly with the elderly, such as senior centers, retirement complexes, hospitals, rehabilitation facilities, community aging services, case management agencies and nursing homes. Students are prepared to continue their education or assume careers in aging-related areas such as social work, law, public health, medicine, health administration and public policy.

## Requirements (39 credits)

Course Title Credits

1. Required courses for the major in gerontology:

SO 101 Introductory Sociology* 3
PS 101 Introductory Psychology* 3
GT 205 Orientation to Gerontology 1
GT 263 Sociology of Aging 3
GT 365 Aging: Problems \& Policies 3
PS 234 Adult Development 3
BMS 200 Biology of Aging* 3
GT 381 Evaluation Research 3
GT 385 Senior Seminar 3
2. Two internships in the community

GT 292 Internship in Gerontology 3
GT 392 Advanced Internship 3
3. Two courses from the following:

SO 241 Race \& Ethnicity* 3
SO 255 Sociology of the Family* 3
SO 264 Social Welfare 3
SO 266 Population \& Society* 3
SO 280 Illness \& Disability* 3
SO 305 Death, Grief \& Bereavement 3
SO 312 Social Organizations \& Behavior 3
SO 244 Social Stratification* 3

| PL 220 | Ethics \& Human Values* | 3 |
| :--- | :--- | ---: |
| PL 234 | Philosophies of Health* | 3 |
| PL 268 | Life \& Life After Death | 3 |
| PS 325 | Health Psychology | 3 |
| Any health administration course | 3 |  |
| 4. Three courses from the following: |  |  |
| GT 300 | Special Topics |  |
| GT 305 | Death, Grief \& Bereavement | 3 |
| GT 310 | Elder Law | 3 |
| GT 311 | Introduction to Social Work | 3 |
| GT 315 | Case Management | 3 |
| GT 318 | Therapeutic Recreation | 3 |
| GT 325 | Counseling Older Clients | 3 |
| GT 270 | Program Planning | 3 |
| "These courses also satisfy University Curriculum requirements. |  |  |

## Bachelor of Arts in Social Services

American society is increasingly faced with challenges in delivery of social services to a growing set of underserved populations. For students who want to work within the social service delivery sector, this major provides a perfect background. Students choose courses from among four specialized service areas: health, welfare, justice and aging. All students complete two semester-long internships in area agencies such as those providing support services for battered women, neglected children, people with disabilities, veterans and those who are incarcerated. Students are prepared to continue their education or assume careers in areas such as social work, public health, public administration and criminal justice.

## Requirements ( 37 credits)

1. Introductory Sociology (SO 101), Orientation to Sociology (SO 205) and at least two of the following:
Course Title Credits

SO 225 Social Problems 3
SO 264 Social Welfare 3
SO 266 Population \& Society 3
2. Internship (SO 292)
3. Internship (SO 392)
4. Minimum of two courses each in two of the following areas: Health, Welfare, Justice \& Aging
5. Social Stratification (SO 244), Evaluation Research (SO 381), Social Policy (SO 385)

## Bachelor of Arts in Sociology

American society is in the midst of rapid social change, which affects all of our social institutions. Families, schools, the economy, political-legal and health care systems are all experiencing stress. Students in this major study and analyze this change and explore potential solutions to such societal problems. Issues such as globalization and race, gender and class inequality are the focus of course work and fieldwork experience. Each student is required to complete a semester-long internship in the community in such settings as schools, government and social service agencies, treatment centers and non-profits. Students are prepared to continue their education or assume careers in areas such as teaching, social work, public administration, health care, law and criminal justice.

## Requirements (37 credits)

1. Introductory Sociology (SO 101), Orientation to Sociology (SO 205) and at least two of the following:
Course Title Credits

SO 201 Social Theory 3
SO 225 Social Problems 3
SO 304 Sociology of Gender 3
SO 241 Race \& Ethnicity 3
2. Internship (SO 292).
3. Five electives in sociology, at least two of which must be at 300 -level.
4. Social Stratification (SO 244), Evaluation Research (SO 381), Social Policy (SO 385).

## Minor Programs

A minor in anthropology, criminal justice, gerontology or sociology consists of 18 credits of course work in the field. Students who wish to minor must confer with the department chairperson to select those courses that enable them to pursue a particular interest or select those courses most related to their major field. A student majoring in criminal justice, gerontology, social services or sociology cannot minor in one of the other major programs offered by the Department of Sociology.

## Department of Visual and Performing Arts

Bachelor of Arts in Game Design and Development Bachelor of Arts in Interactive Digital Design Bachelor of Arts in Theater
Minor in Fine Arts
Minor in Game Design and Development
Minor in Music
Minor in Theater
Minor in Theater Design and Production
The Department of Visual and Performing Arts is an interdisciplinary department that offers students the opportunity to study the history, theory and practice of art, design, theater and music. The visual arts programs foster the development of creative processes for the creation of innovative works of art and design while situating the work in the broader contexts of history and culture. The performing arts programs include courses in the history of the disciplines and techniques of performance, which are enriched by an active theater production program and performing ensembles.

Programs in the Department of Visual and Performing Arts offer students a foundation in creative thinking that is recognized as critical to problem-solving and conceptualization, qualities increasingly valued by leaders and organizations in all areas of society.

## Bachelor of Arts in Game Design and Development

The bachelor of arts in game design and development is a preprofessional program that prepares students to enter the highly competitive industry of game design or to pursue studies at a graduate level. This is an applied, interdisciplinary major, which focuses on the meaningful application of game technologies beyond commercial entertainment by addressing serious topics in health, social, economic and environmental issues, education, scientific literacy and general productivity. Students receive a solid foundation in fundamental arts principles and concepts, and develop specialized technical skills and competence in electronic art and design.

There are a total of 39 credits in the major. The major has nine required core courses. All students
choose a track in either game design (designing, producing and making games) or in game art (creating and designing the artwork for games such as characters, props, costumes, architecture, levels and sound). A unique feature of the program is the game lab where students come together in interdisciplinary teams to build game prototypes. The game lab is offered as a multisemester sequence beginning in the sophomore year. In the senior year, the program culminates in a capstone experience when students take the Senior Project and Seminar.

A grade of C - or better is required in all game design and development prerequisites.

It is recommended that students majoring in game design and development pursue a minor or double major in a complementary discipline such as interactive digital design or computer science. Majors can elect to pursue internships and take electives that complement their interests in the field. Students choosing the game art track are encouraged to take art history courses.

## Game Design and Development Core Requirements

(27 Credits)
Course Title Credits

GDD 101 Introduction to Game Design 3
GDD 110 Introduction to Visual Design 3
GDD 200 Introduction to Game Development 3
GDD 210 Game Lab I: Team Projects (Fall) 3
GDD 211 Game Lab II: Team Projects (Spring) 3
GDD 395 Critical Game Studies 3
or GDD 396 Games, Learning \& Society
GDD 410 Game Lab III: Team Projects (Fall) 3
GDD 411 Game Lab IV: Team Projects (Spring) 3
GDD 495 Senior Project \& Seminar I (Fall) 3
GDD 496 Senior Project \& Seminar II (Spring) 3
Game Design and Development Tracks
With the recommendation of the student's adviser and/or the program director, students take two courses in the game design or game art track, and also choose two electives for their chosen track.
Game Design Track Requirements (6 credits)
GDD 201 Game Design I 3
GDD 301 Game Design II 3
Game Art Track Requirements (6 credits)
GDD 202 Game Art I
GDD 302 Game Art II 3
Game Design and Game Art Track Electives ( 6 credits)
GDD 250 Interactive Storytelling \& Narrative 3
GDD 300 2D Animation for Games 3
GDD 310 Game Lab III: Team Projects (Fall) 3

GDD 311
Game Lab IV: Team Projects (Spring)
GDD 370 Acting \& Directing for Game Design
GDD 402
GDD 405
GDD 399-499 Independent Study 1-3
GDD 490 Internship
Substitutions to this list are permitted with prior approval of the program director.

## Bachelor of Arts in <br> Interactive Digital Design

The interactive digital design major provides students with in-depth, hands-on experience in the design and authoring of original interactive work for a range of media including web, print, motion graphics and mobile devices. Students have the opportunity to study graphic design and interactive design, emphasizing creative thinking, visual literacy, and technological proficiency. The curriculum has been carefully planned to situate design practices in the larger context of the humanities and society. Course work includes a balance of theory, concept and practice.

There are a total of 36 credits in the major. The first 27 of those credits are derived from a core of nine required courses. The remaining 9 credits (three courses) are chosen from a list of electives. A C- or better is required in all interactive digital design prerequisites.


| Interactive Digital Design Core Requirements (27 credits) |  |  |
| :---: | :---: | :---: |
| Course | Title | Credits |
| IDD 110 | Design Research \& Methods | 3 |
| IDD 160 | Digital Design I | 3 |
| IDD 161 | Digital Design II | 3 |
| IDD 250 | Interactive Narrative Forms | 3 |
| IDD 301 | Motion Graphics I | 3 |
| IDD 302 | 3D Graphics \& Animation I | 3 |
| IDD 315 | Mobile Interaction Design | 3 |
| IDD 410 | Advanced Interactive Authoring | 3 |
| IDD 480 | Senior Seminar \& Portfolio | 3 |
| Interactive Digital Design Electives (9 credits) |  |  |
| With the recommendation of the student's adviser, two electives are chosen from the following list: |  |  |
| IDD 210 | Graphic Design History | 3 |
| IDD 270 | Type Design \& Production I | 3 |
| IDD 305 | Digital Photography | 3 |
| IDD 370 | Type Design \& Production II | 3 |
| IDD 401 | 3D Graphics \& Animation II | 3 |
| IDD 405 | Soundscapes | 3 |
| IDD 420 | Alternative Interfaces | 3 |
| IDD 440 | Motion Graphics II | 3 |
| A third elective can be chosen from the above list or from the following list: |  |  |
| AR 158 | Photography I | 3 |
| AR 258 | Photography II | 3 |
| IDD 300/400 | Special Topics (as needed) | 3 |
| IDD 399/499 | Independent Study | 3 |
| IDD 490 | Internship | 3 |
| CSC 110 | Programming \& Problem Solving | 3 |
| Substitutions to this list are permitted with prior approval of the student's adviser and the director of IDD. |  |  | the student's adviser and the director of IDD.

## Bachelor of Arts in Theater

The Quinnipiac University theater major is a preprofessional program that prepares students for careers or graduate studies in areas such as theater production and administration, theater education and drama therapy. The program is distinctive in its applied focus. Each student majoring in theater is strongly encouraged to pursue a secondary program in a specified area, such as education (the courses required by the MAT program), sociology, psychology, political science or history (studies to support the emphasis in community and theater), business or communication (to augment a focus in theater administration) or media production (to augment a focus in theater production).

Additionally, students are required to complete an internship during their junior or senior year of
study. Possible internship sites include the Long Wharf Theatre, Hartford Stage and other professional theaters in the New York area (for theater production, administration and educational theater), the West Haven VA Hospital, the Clifford Beers Institute, the Long Wharf (theater and community) and area elementary and secondary schools (educational theater). The BA in theater allows students to explore their interests in performance areas (acting, directing, playwriting) while gaining the education and work experience to secure employment or to pursue graduate training upon graduation.

| Theater Core | Requirements (28 credits) |  |
| :--- | :--- | ---: |
| Course | Title | Credits |
| DR 191 | Theater Practicum | 4 |
| DR 140 | Stagecraft | 3 |
| DR 160 | Introduction to Acting | 3 |
| DR 270 | History \& Dramatic Literature of the |  |
|  | World Theater, I |  |
| DR 275 | History \& Dramatic Literature of the |  |
|  | World Theater, II |  |
| DR 230 | Directing for the Theater | 3 |
| DR 286 | Comparative Drama/Play Analysis | 3 |
| DR 310 | Seminar/Lab in Community-Focused Theater |  |
| or DR 410 | Senior Project | 3 |
| DR 370 | Internship | 3 |

In addition to completing courses for the departmental core, students complete courses for one of the following four tracks.

## Theater Generalist Track ( 9 credits)

Students take 9 credits of 200 - or 300 -level courses chosen from at least two of the following areas: acting, directing, theater history and dramatic literature, design, playwriting, theater production/administration, such as:
DR $220 \quad$ Voice \& Movement
DR 240, 241
or DR 242 Scenic, Lighting or Costume Design 3
DR 260 Acting for Film/TV 3
DR 375 History \& Literature of Contemporary Theater 3
DR 350 Playwriting

## Theater Education Track (9 credits)

Additional requirement courses satisfy State of Connecticut Theatre Arts Certification guidelines for specialized credential in theater (6/7/05).
DR 220 Voice \& Movement for Actors 3
DR 350 Playwriting 3
DR 305 Theater for Young Audiences 3
Plus 18 credits in education, as specified by MAT program. (Electives in applied music are strongly encouraged for theater education students.)


Theater Production/Administration Track (9 credits)
Students choose three courses from the following list, chosen in consultation with adviser:
DR 191 Theater Practice I 3
DR 240 Scenic Design for the Theater 3
DR 241 Lighting Design for the Theater 3
DR 242 Costume Design for the Theater 3
DR 291 Theater Practice II 3
DR 380 Theater Administration 3
DR 391 Theater Practice III 3
Theater and Community Track ( 9 credits)
DR 310 Seminar/Lab in Community Focused Theater
DR 350 Playwriting 3
Plus one additional 200- or 300-level theater course (Two courses if Seminar/Lab in Community Focused Theater is taken as core major requirement.)

## Minor in Fine Arts

The Department of Visual and Performing Arts offers a minor for students interested in exploring the fine arts. The different tracks in fine arts are designed to advance each student's unique abilities in creative thinking and artistic processes, in addition to developing a basic foundation in visual literacy. Students electing this minor must complete the courses under one of the following three tracks (18 credits).
Fine Arts: Studio Art Track
Either AR 102 or AR 103
AR 140
AR 251
One other 200-level studio art course or AR 158
Two 300-level AR courses, at least one of which must be a studio course

## Fine Arts: Art History Track

Either AR 102 or AR 103
Any two of the following: AR 102, AR 103, AR 104 or AR 105 Any three 300-level art history courses

## Fine Arts: Interdisciplinary Track

Either AR 102 or AR 103
Five courses in art, music and/or drama. (In consultation with the chair, certain film courses such as FVI 102 may be applicable.) At least two courses must be at the 200 level or higher. Due to the interdisciplinary nature of this minor, courses from at least two disciplines must be taken with a maximum of four courses from any single discipline.

## Minor in Game Design and Development

This game design and development minor focuses on the meaningful application of game technologies beyond commercial entertainment by addressing serious topics in health, social, economic and environmental issues, education, scientific literacy and general productivity. Students receive a solid foundation in fundamental arts principles and concepts, and develop specialized technical skills and competence in electronic art and design. A minor may be combined with any major inside or outside the College of Arts and Sciences, complementing majors or minors in other disciplines on campus (18 credits).
Minor Core Requirements ( 15 credits)
Course Title Credits

GDD 101 Introduction to Game Design 3
GDD 110 Introduction to Visual Design for Games 3
GDD 200 Introduction to Game Development 3
GDD 210 Game Lab I: Team Projects (Fall) 3
GDD 211 Game Lab II: Team Projects (Spring) 3

## Minor Electives (3 credits)

At least one course from the following list must be selected in consultation with the program director. Minors are encouraged to take additional courses as free electives outside their major at the 300-400 level.
GDD 310 Game Lab III: Team Projects (Fall) 3
GDD 311 Game Lab IV: Team Projects (Spring) 3
GDD 395 Critical Game Studies 3
GDD 396 Games, Learning \& Society 3
Substitutions to this list are permitted with prior approval of the program director.

## Minor in Interactive Digital Design

The IDD minor has been suspended until further notice, but IDD courses are still open (as space allows) to students wishing to explore/study the discipline without receiving a minor.

## Minor in Music

The music minor offers students a broad spectrum of the subject both as an art form and as a global "language." Students are required to master the rudiments of musical theory and to emerge with a comprehensive view of music history as well as the fundamentals of informed listening. Students also study an instrument of their choosing and participate in one of the University's performing ensembles. Given the prominence music continues to hold culturally, its interdisciplinary relationships make it well-suited to the interests of students majoring in a variety of fields and also offers students an outlet for artistic expression. (18 credits). Required Courses
Course Title Credits

MU 130 Understanding Music 3
MU 230 Music Theory I 3
MU 330 Music Theory II 3
MU 140 Applied Studio Lessons 3
(three semesters, 1 credit each)
Students also take three semesters of a performing ensemble (1 credit each):
MU 190 Quinnipiac Singers
MU 194 Jazz Band
MU 200 Orchestral Ensemble
Music Elective

## Minor in Theater

The theater minor provides students with a background in the primary areas of theater study and production while allowing them the flexibility to explore their particular interests.

Students select courses from an array of offerings in acting, directing, playwriting, design, stagecraft, theater history, theater for community and theater for young audiences. Students also may earn theater practicum credit by working on the Theater for Community mainstage productions (18 credits).
Theater Minor Required Courses (12 credits)
Course Title Credits

DR 140 Stagecraft 3
DR 160 Introduction to Acting 3
DR 230 or 350 Directing or Playwriting 3
DR 270 or 275 Theater History, part I or II 3
Electives ( 6 credits)
Any two 200-400-level DR courses

## Theater Design and Production Minor

The theater design and production minor gives students an opportunity to explore behind the scenes in hands-on courses that offer experiential learning in all areas of technical theater. Carpentry, painting, drawing, designing, building, sewing, wiring, sound engineering, and problem solving are all a part of this minor.
Required Courses ( $\mathbf{1 2}$ credits)
Course Title Credits

DR 140 Stagecraft 3
DR 307 Drafting and Rendering 3
plus two of the following:
DR 340, 341,
or 342 Scenic, Lighting or Costume Design
Electives ( 6 credits)
Any two 100-400-level DR courses
Students may count up to 3 credits of practicum as electives toward the technical theater minor.

## Performing Arts Workshop

The department invites participation in musical performance workshops, which carry an optional 1 academic credit and which can be repeated up to a maximum of 6 credits, the equivalent of two electives in liberal arts. These workshops include:
MU 190 Quinnipiac Singers
MU 191 Hamden Symphony Orchestra
MU 194 Jazz Ensemble
MU 140 Applied Studio Lessons

## Interdisciplinary Minors

Minor in Asian Studies
Minor in International Studies
Minor in Middle Eastern Studies
Minor in Science and Values
Minor in Sports Studies
Minor in Women's Studies

## Minor in Asian Studies

This interdisciplinary program introduces students to the people and cultures of East and Southeast Asia. To complete the minor in Asian Studies students are required to take six courses (18 credits) distributed as follows:
Language ( 6 credits)
Course Title Credits
JP 101-102 Japanese 6
CN 101-102 Chinese 6
History ( 6 credits)
HS 235 Modern China 3
HS 236 Modern Japan 3
HS 271 Southeast Asia: the Mainland 3
HS 272 Southeast Asia: the Islands 3
HS 305 Vietnam 3
HS 332 History of India 3
Open Electives ( 6 credits)
AN 337 Non-Western Medicine 3
CN 201-202 Chinese 3
JP 201-202 Japanese 3
PO 111 International Relations 3
PO 331 Topics in Comparative Government 3

## Minor in International Studies

A minor program in international studies is designed to stress connections between "classroom" learning and the international experience as well as to increase program options available to students with an interest in international studies who are pursuing major programs of study in fields such as English, history, legal studies, communications, political science, psychology, social services, sociology and Spanish, as well as programs in business and the health sciences. Students pursuing a minor in international studies are required to complete 18 credits in four years. Students are encouraged to meet with the international studies adviser to declare the minor by the end of their sophomore year or early in their junior year.

## Course Structure

Students are required to satisfy the following requirements within the 18 -credit minor; at least 6 credits must be completed at the 300 level:

1. Two world language courses at the 200 -level or above. In languages without advanced course offerings, students may complete two courses in a second language where the first language was pursued through the 102 course.
2. One course that explores a non-American culture. Courses offered in history, art, comparative literature or anthropology can all satisfy this requirement. Examples include:

## Course <br> Title <br> Credits

AN 101 Introduction to Cultural Anthropology 3
AN 223 Latin American Societies and Cultures 3
AN 229 Peoples of Africa 3
AN 304 Cross-Cultural Perspectives on Gender, Sex and Sexuality
AN 337 Anthropology of Health \& Medicine 3
HS 227 Russian Cultural \& Intellectual History 3
HS 229 The Irish 3
HS 235 History of Modern China 3
HS 236 History of Modern Japan
HS 273 African History \& Culture
SP 363 20th-Century Latin American Fiction 3
SP 375 Pre-Columbian America 3
3. One course in international business/economics at the introductory or advanced level depending on the student's major concentration:
EC 250 International Economics 3
IB 201 International Business 3
IB 280 International Field Experience 3
IB 311 International Marketing 3
IB 324 International Business Negotiation 3
IB 325 International Trade, Investment \& Competition 3
4. One course in geography, philosophy or political science. Examples include:
GP 101 Introduction to Geography
GP 200 Special Topics in Geography
PL 265 Living Religions of the World
PL $300 \quad$ Special Topics in Philosophy
PO 211 Introduction to International Relations
PO 317 International Law
PO 311 Topics in International Relations
PO 331 Topics in Comparative Government
PO 332 European Politics 3
PO 333 Middle Eastern History \& Politics 3
5. One capstone course in international studies: PO 321
(Comparative Government) is a required course for all students who choose to minor in international studies.

Students are encouraged, but not required, to take off-campus studies, either in the form of a study abroad or an internship in, for example, Washington, D.C.

## Minor in Middle Eastern Studies

The minor in Middle Eastern studies facilitates the interdisciplinary study of the Middle East, offering insights into the language, history, culture, politics and religions of this ethnically diverse geographical region. The program recognizes the interconnectedness of the peoples of the Middle East, and emphasizes the interactions between the Middle East and the wider global community, in both the past and present. Courses included in the minor encompass the Arab World, Turkey, Israel, Iran and North Africa. While current political and military conflicts are covered, no single topic, academic discipline or political ideology dominates the programming; students are able to engage with a number of approaches and disciplines, ranging from ancient Middle Eastern religions to contemporary political economies of Middle Eastern countries.

## Course Structure

A minor in Middle Eastern studies consists of six courses (18 credits) to be selected from the list below after consultation with the program director.
Course Title Credits

ARB 101 Elementary Arabic I 3
ARB 102 Elementary Arabic II 3
HBR 101 Elementary Modern Hebrew I 3
HBR 102 Elementary Modern Hebrew II 3
HS 307 The Holocaust 3
HS 328 Jewish History 3
HS 333 The Middle East, 1300-1919 3
PL 265 Living Religions of the World 3
PO 333 Middle Eastern History \& Politics 3
Special topics courses relevant to the minor are
offered on a rotating basis to supplement the courses listed above. Examples include
Introduction to Judaism or The Anthropology of Morocco: Gender and Indigeneity.

## Minor in Science and Values

This interdisciplinary program seeks to introduce students to the social, political, economic and ethical issues raised by the dominant place that science has assumed in our world. For this program, science is defined broadly to encompass both scientific theory and practical applications of scientific knowledge. The minor in science and values therefore includes consideration of technology, the practice of medicine, and aspects of the human sciences in addition to the traditional physical, chemical and biological sciences. The purpose of a minor in science and values is to give students the skills to understand and to prepare for changes in science, technology and health care, and to evaluate the ways in which these changes impact society. A science and values minor provides an understanding of the pace of change in science and medicine, and develops critical thinking and writing skills applicable to a broad range of professional pursuits including technical writing, science journalism and patent law. One specific aim of the program is to expose students to a wide range of courses offered by different schools throughout the University, while giving them a solid foundation in the humanistic tradition of the arts and sciences. The course of study is designed to build upon the knowledge and skills developed in the student's major by providing a greater interdisciplinary scope and a consideration of ethical issues on topics relating to science, technology and health.

To complete a minor in science and values students are required to complete six courses (18 credits). Students take SV 101: Introduction to Science, Technology, Health and Human Values, and SV 301: Science, Technology and Health Care: Present \& Future Challenges. In addition, students take 12 credits from the following list of approved courses, no more than 6 credits of which may be at the 100 level:

## Course Title <br> Credits

AN 337 Anthropology of Health \& Medicine
BIO 205/PL $2 २ 2$ Bioethics
BIO 222 Evolution in Biology \& Literature
BMS 117 The Human Organism
BMS 162 Human Health \& Disease
GT 305/SO 305 Death, Grief \& Bereavement
HS 330 The History of Western Medicine
ISM 101 Principles of Information Technology

PL 220
PL 234
Ethics \& Human Values
PL 235 Philosophy of Science 3
PL 238 Philosophies of the Future 3
PO 218 Politics of Health 3
PS 325 Health Psychology 3
SO 266 Population \& Society 3
SO 280 Illness \& Disability 3
In consultation with the director of the program, students design a course of study with a coherent focus related to their interests and major field. These courses of study will have a central theme or area of study that falls within the general scope of the program.

## Minor in Sports Studies

Whether as a participant in sports or as a spectator, people throughout the world have contributed to the creation of a mega-billion dollar industry. Sport is a profound social phenomenon, the study of which can provide the student with deep insights into the dynamics of our society.

The goal of the interdisciplinary sports studies minor is to foster an understanding of the role of sport in society and culture, to explore the complex relationships between sport and various industries and institutions (business, medicine, media, politics, law, etc.), and to prepare students for careers sports-related industries by raising awareness of the major issues facing professionals in these industries. This minor also seeks to make connections between what students learn in the


University Curriculum and their major course work by illustrating how sport bridges various disciplines.

Students can complete the minor by taking six courses for a total of 18 credits. All students must take SPS 101: Introduction to Sports Studies. In addition, students must select at least one SPS course from two of the four areas (arts and sciences, business, communications, health science), with the remaining credits coming from any of the courses offered as part of the minor.
Students from the School of Communications can take no more than 6 credits in communications. Classes are cross-listed with the SPS designation.
Course Title Credits

SPS 101 Introduction to Sports Studies 3
SPS/MEP 105 Video Essentials—Sports Broadcasting 3
SPS/AT 201 Medical Aspects of Sport \& Activity 3
SPS/LE 224 Sports Law 3
SPS/MA 226 Baseball \& Statistics 3
SPS/PL 240 Philosophy of Sport 3
SPS/SO 307 Sociology of Sport
SPS/PRR 311 Sports Public Relations 3
SPS/EC 325 Sports Economics 3
SPS/HS 352 History \& Social Impact of Baseball 3
SPS/JRN 361 Sports Reporting 3
SPS/MSS 420 Sports, Media \& Society 3
SPS 488 Internship 3
SPS 499 Independent Study 3

## Minor in Women's Studies

Women's Studies is an interdisciplinary field that takes the study of women and gender as its subject. The women's studies program has three purposes. First, it introduces students to the experiences and achievements of women, and their treatment by society here and now, as well as in earlier historical times and in other geographical places. Second, it examines gender as a social construct by taking it as the primary focus of analysis and raising questions about its impact on traditional disciplines. This enables students to examine the content of other courses in new ways. Third, it promotes interdisciplinary understanding of women's experience by requiring students to take collateral courses in several academic areas in the humanities and the social sciences and by providing an integrative seminar.

For a minor in women's studies, students take six courses. WS 101, Introduction to Women's

Studies, is recommended. WS 301, Seminar in Women's Studies, is required during the junior or senior year. The other courses should include at least three different disciplines and be selected from the following:

Course

Credits

WS 210 Human Sexuality 3
WS 219 Women in Political Thought 3
WS 232 Women in the Criminal Justice System 3
WS 235 Literature by Women 3
WS 244 Psychology of Prejudice 3
WS 250 Gender \& the Law 3
WS 255 Sociology of the Family (UC) 3
WS 260 Psychology of Men 3
WS 262 Psychology of Women (UC) 3
WS 265 Sociology of Work 3
WS 285 Protest \& Change 3
WS 287 Women \& Public Policy 3
WS 302 Women, Health \& Aging 3
WS 304 Sociology of Gender 3
WS 308 Women in America, 1770-1920 3
WS 309 Women in America, 1920-1990 3
$\begin{array}{lll}\text { WS } 310 & \text { Cross-Cultural Perspectives on Gender, } \\ & \text { Sex \& Sexuality }\end{array}$
WS 311 Diversity in the Media 3
WS 315 Women Artists: Sex, Lies \& Handbags 3
WS 330 Philosophy and Gender 3
$\begin{array}{lll}\text { WS } 335 & \text { Images of Women in Psychology } \\ & \text { \& Literature }\end{array}$
WS 338 American Literature by Women of Color 3
WS 345 Media Audiences 3
WS 370 Intimate Partner Violence Seminar 3

## School of Business and Engineering

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## School of Business and Engineering

## Lender School of Business Center <br> 203-582-8720 (central office)

| Administrative Officers |  | Phone <br> Dean |
| :--- | :--- | :---: |
| Associate Dean | Matthew O'Connor | $203-582-8914$ |
| Assistant Dean—Academic Services | Sean Reid | $203-582-8746$ |
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| $\quad$ Leadership Program |  |  |
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| Accounting | Kathy Simione | $203-582-8367$ |
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| Organizational Leadership and Health Management | Angela Mattie | $203-582-3630$ |

## Mission Statement

The School of Business and Engineering provides the foundation for lifelong learning to meet the business and leadership challenges of today and tomorrow.

## Values

We pursue a supportive learning environment-both inside and outside of the classroomthat provides our students with opportunities to develop the expertise required to distinguish themselves academically and professionally.

We are devoted to the principles of integrity and pledge to be ethical, honest, fair, respectful and responsible in our interactions with others.

We embrace diversity in people and in ideas.
We systematically assess our teaching efforts and our curricula to ensure learning.
We are dedicated to the continual development of our faculty in terms of teaching and research.
We actively support scholarship that advances business practice and pedagogy.
We are committed to mutually beneficial collaboration with the business community that advances the education of our students and the research of our faculty.

## Learning Goals

## Personal and Professional Development

The formulation of an individualized career plan and the development of the personal leadership characteristics and professional skills required to realize that plan.

## Expertise in a Business Discipline

An in-depth understanding of a business discipline including technical knowledge, the ability to apply that knowledge, and skill in the evaluation of business strategy within that discipline.

## Business Integration

An understanding of the interdependence of the various functional areas of business.

## Strategic Decision Making

The ability to make a well-reasoned recommendation concerning a business situation.

## Written Communication

The ability to communicate effectively using standard business forms of writing.

## Oral Communication

The ability to present information verbally in an organized, clear and persuasive manner.

## Teamwork

The interpersonal skills required to work effectively as a member of a team.

## Technology

The strategic use of technology, including technical skill and an understanding of the role that technology plays in business.

## Ethical Reasoning

The identification of ethical issues related to business practices, the recognition of the complexity and ambiguity of those issues, the application of an ethical decision-making framework, and the formulation of an ethically justifiable solution.

## Diversity and Globalization

An awareness and appreciation of diversity in the workplace and of issues surrounding the globalization of both domestic and international business activities as well as the ability to develop strategies to address those issues.

## Business Core Curriculum

The common requirements for graduation with the bachelor of science degree for all business majors include completion of the University Curriculum (that covers fundamental areas such as English, quantitative literacy, science, social sciences, the humanities and the arts), the business core curriculum and the major requirements. The business core challenges each student to develop a knowledge and skill base for further study within the business disciplines, and the major requirements provide students with specialized knowledge within a field of business.

In addition to the traditional business core course work in accounting, business law, economics, finance, international business, management and marketing, the school also offers a series of seminars in personal and professional development designed to begin the professional development process required to be successful in today's competitive business world.

As noted below, these seminars cover topics including personal effectiveness, career planning and development, business communications, ethics and diversity.

## Business Core Curriculum

Course Title Credits

AC 211 Financial Accounting 3
AC 212 Managerial Accounting 3
CIS 101 Principles of Information Technology 3
EC 111 Principles of Microeconomics 3
EC 112 Principles of Macroeconomics 3
EC 271 Applied Statistical Methods 3
FIN 201 Fundamentals of Financial Management 3
IB 201 International Business 3
LW 121 Business Law and Society 3
MG 210 Essentials of Management \& Organizational Behavior
MG 211 Operations Management 3
MK 201 Marketing Principles 3
SB 101 The Business Environment 3
SB 111 Personal Effectiveness 1
SB 112 Career Planning \& Development 1
SB 211 Business Communications 1
SB 212 Ethics \& Diversity 1
SB 450 Strategic Integrated Management 3
Total 46

| University Curriculum |  |
| :---: | :---: |
| University Seminars |  |
| QU 101 The Individual in the Community | 3 |
| QU 201 Seminar on National Community | 3 |
| QU 301 Seminar on Global Community | 3 |
| English Composition |  |
| EN 101 Elements of Composition I | 3 |
| EN 102 Elements of Composition II | 3 |
| Quantitative Literacy |  |
| MA 118 Introductory Calculus | 3 |
| Science | 7 |
| Humanities | 6 |
| Fine Arts | 3 |
| University Curriculum Elective |  |
|  | Total 37 |

Note: EC 111, EC 112 \& IB 201 completed as part of the business core fulfill the University Curriculum social science requirement and 3 of the 6 required credits of University Curriculum electives.

## Career Services

In the School of Business and Engineering, members of the Office of Career Services work with students to plan the academic and professional components of each student's education. They explore career interests, guide students through a career development process and provide assistance with internships, resume preparation and employment interviews.

## Internship Program

Undergraduate business students are encouraged to gain valuable career experience by participating in our internship program. Both paid and unpaid internships are available in a range of industries.

With the approval of their department chair and dean, students who have completed a minimum of 57 credits with a GPA of 2.6 or higher and have completed the business core courses within their major are eligible to earn up to 3 academic credits for an internship experience. Students who do not meet these standards may complete an internship, but are not eligible to earn academic credit for that experience. Unless a student is completing a double major, only 3 credits can be earned for internship experiences. Students who are completing a double major can earn up to 3 credits in each major (for a total of 6 credits) for internship experiences. Students may not receive internship credit toward the completion of a minor.

## Minor in Business

The minor in business is available to students outside the School of Business and Engineering who are enrolled in bachelor of arts or the bachelor of science programs. The intention of this minor is to provide students with a broad perspective of the disciplines that affect organizations. Students wishing to receive a minor in business must receive written approval from the assistant dean of academic services.

Students must complete the following four classes, in addition to any two business courses, for which the student has completed the prerequisites.
Course Title Credits

AC 211 Introduction to Financial Accounting 3
FIN 201 Fundamentals of Financial Management 3

| MG 210 |  |
| :--- | :--- | :--- |
|  | Organizational Behavior |

MK 201 Marketing Principles 3
Plus any two business electives ( 6 credits)
Note: EC 111 is a prerequisite for FIN 201 and MK 201.

## Degrees in Business

## Bachelor's Degrees

Accounting
Advertising
Biomedical Marketing
Computer Information Systems
Computer Information Systems and Accounting Economics
Engineering
Civil Engineering
Computer Software Engineering
Industrial Engineering
Mechanical Engineering
Entrepreneurship and Small Business Management
Finance
International Business
Management
Marketing

## Certificate Programs

Export Marketing
Health Care Compliance
International Purchasing
Long-term Care Administration

## Master's Degrees

Master of Business Administration
with electives available in:
Computer Information Systems
Finance
Health Administration
International Business
Management
Marketing
MBA/CFA ${ }^{\circledR}$ (Chartered Financial Analyst Track)
MBA/HCM (Health Care Management Track)
MBA/SCM (Supply Chain Management Track)
Master of Science in Information Technology
Master of Science in Organizational Leadership
Fast Track Combined BA/MBA Program
Fast Track Combined BS/MBA Program
Combined BS/MS in Computer Information Systems
JD/MBA

## Fast Track Combined Bachelor's/Master's Degree Programs

The Fast Track BA/MBA program is designed for outstanding undergraduate students outside of the School of Business.

The Fast Track BS/MBA and BS/MS programs are designed for outstanding undergraduate School of Business students. Options are available within the MS in computer information systems and master of business administration programs. These programs enable students to start taking courses toward their graduate degrees during senior year. Interested students must apply for admission to one of the programs during the last semester of junior year. For program descriptions refer to pages 180-181 of this catalog.


## Department of Accounting

Bachelor of Science in Accounting
Bachelor of Science in Computer Information
Systems and Accounting
Minor in Accounting
Quinnipiac's accounting curriculum provides a blend of relevant expertise and rigor that will set a foundation for your career. The bachelor of science in accounting program features a broad business education, designed to foster the technical competence and analytical skills required to maximize each student's potential as a business professional. Sometimes referred to as the language of business, accounting is used to communicate financial and other information to people, organizations and governments, and is integral to effective management.

An understanding of accounting is necessary to thrive in various accounting, finance and management settings. The accessibility of Quinnipiac's faculty and staff, the resources provided to students, and the school's contacts in the business world all contribute to the success of accounting majors.

## Learning Outcomes of the Program

Graduates of the accounting program demonstrate technical knowledge and skills, such as:

- classifying-identifying the appropriate accounting treatment of events and transactions
- measuring-calculating inventory, cost of goods sold and depreciation using various accounting methods
- reporting-learning to identify the accounting principle or constraint that leads to a particular treatment and to prepare financial statements that comply with principles generally accepted in the U.S.
- auditing and analytical skills-understanding and applying generally accepted auditing stan-dards-the guidelines auditors use to ensure accuracy, consistency and verifiability. Students also demonstrate analytical skills by completing an audit simulation in accounting systems, determining when specific performance measures are used and the specific cost of allocating procedures.
Quinnipiac accounting graduates often receive job offers in the summer before their senior year.
They connect with potential employers early in
their studies by participating in career fairs and accounting networking events on campus, which bring representatives from local, regional and international accounting firms, as well as representatives from industry and government. Accounting majors also use these opportunities to interact with alumni and other representatives from their future profession.

Through these contacts and through the support of career services staff, many students obtain internships. These on-the-job experiences provide opportunities to integrate classroom learning into a real-world environment to clarify career goals.

Upon graduation, many accounting majors join public accounting firms. These firms generally offer services including auditing, consulting, income tax planning and preparation, accounting compilations and review. Some graduates go into management and private industry accounting, where they prepare financial statements for external reporting, develop budgets, perform cost analyses or internal audits. An accounting background is highly appreciated in industry; many CEOs and presidents come from accounting and finance departments.

## Bachelor of Science in Accounting

A total of 125 credits is required for graduation with the degree of BS in accounting. Accounting majors must earn a minimum grade of a B - in the following courses to receive credit: AC 211 (formerly AC 101) Financial Accounting; AC 212 (formerly AC 102) Managerial Accounting; AC 305 Intermediate Accounting I; and AC 306 Intermediate Accounting II. An accounting major earning a grade below B- in any of these courses must repeat the course. In addition, accounting majors must earn a minimum grade of C - in all other accounting and law courses.

A minimum cumulative GPA of 3.0 is required for entry into the accounting major. In addition, a minimum cumulative GPA of 3.0 is required for graduation with a degree in accounting.

## Business Core Curriculum (46 credits)

As described on page 93
University Curriculum (37 credits)
As described on page 94

Accounting Core (27 credits)
Course Title Credits
AC 305 Intermediate Accounting I 3
AC 306 Intermediate Accounting II 3
AC 323 Cost Accounting 3
AC 335 Accounting Systems 3
AC 405 Accounting for Business Combinations 3
AC 411 Auditing Theory \& Practice 3
AC 412 Advanced Auditing Theory \& Practice 3
AC 431 Federal Income Tax Procedure 3
AC 432 Advanced Federal Income Tax Procedure 3
Accounting Elective (select one-3 credits)
AC 402 Internship Program 3
FIN (any) Finance Elective 3
LW 122 Law of Property, Sales \& Negotiable Instruments 3
Open Electives (12 credits)

## Bachelor of Science in Computer Information Systems and Accounting

Students who wish to specialize in computer information systems with applications in accounting may earn a dual degree in computer information systems and accounting. For a description of this program, see page 98.

## Minor in Accounting

Students wishing to augment their field of study with the perspective and tools of accounting are encouraged to consider a minor in accounting.

The minor in accounting requires six courses. Students wishing to minor in accounting complete AC 211 Financial Accounting and AC 212 Managerial Accounting. In addition, students must take AC 305 Intermediate Accounting I. The remaining three courses may be selected from the following:
AC 306 Intermediate Accounting II 3
AC 323 Cost Accounting 3
AC 335 Accounting Systems 3
AC 411 Auditing Theory \& Practice 3
AC 431 Federal Income Tax Procedure 3
AC 432 Advanced Federal Income Tax Procedure 3

## Department of Computer Information Systems

Master of Science in Information Technology (see p. 182)
Bachelor of Science in Computer Information Systems
Bachelor of Science in Computer Information
Systems and Accounting
Minor in Computer Information Systems
Graduates of the computer information systems program are business problem solvers who assist firms to be more competitive via the use of technology. Those who choose the computer information systems major enjoy technology and also enjoy working with people.

Quinnipiac University is widely recognized as a national leader in computer information systems education. The CIS program is one of only four ABET-accredited information systems programs located in AACSB-accredited schools of business. The faculty members are national leaders in information systems education.

The department prides itself on excellence in teaching, and fosters a supportive learning environment that provides students with the opportunity to develop the expertise required to distinguish themselves both academically and professionally. Career tracks of program graduates include high-demand positions in data management, network management, information systems security administration, systems analysis, web development and mobile applications support.

The demand for CIS graduates over the next decade is outstanding with job growth projected to increase rapidly. Currently there are more career openings for CIS majors than there are graduates available to fill the positions; consequently, starting salaries are among the highest of all undergraduate business majors. All CIS students who qualify complete internships. There are ample internship opportunities available and more than 95 percent are paid internships. Many result in offers of fulltime employment upon graduation.

The department also collaborates with the accounting department to offer an undergraduate program of study in information systems and accounting. A minor in information systems is available as well.

## Bachelor of Science in Computer Information Systems

## Learning Objectives

Computer-based information systems have become a critical component to both the development of products and services as well as the management of organizations. Information systems are vital to problem identification, analysis and decision making at all levels of management. The major in computer information systems focuses on the development of systems that improve the performance of people in organizations. The information systems discipline centers on the development of systems that improve the performance of people in organizations. Information systems professionals must analyze the evolving role of information and organizational processes. Their work includes the design, implementation and maintenance of the information systems that form the backbone of today's global economy.

Students who major in computer information systems are provided with specific skills, including: - Understanding the role of information systems in organizations, including the use of information technology for strategic decision making and competitive advantage, effective and efficient electronic business and electronic commerce strategies, enterprise resource planning to support their business strategy, and supply chain management.

- Analysis and design of information systems that meet enterprise needs, including both a comprehensive understanding and experience using the system development life cycle and alternative design methodologies.
- Alternative information technology architectures, including both hardware and software alternatives, that satisfy current and future business needs.
- A thorough understanding of data management, including the development of databases, the effective use of data warehouses, and data security considerations.
- The role of networking, data communications and wireless computing in supporting organizational effectiveness, including hands-on experience in developing and configuring network environments.

To achieve these learning goals, the program is built upon a carefully structured sequence of required core courses, a distribution of elective courses within the program, and a required internship. As with all programs within the School of Business, students must meet the requirements of the University Curriculum, the School of Business core curriculum, and the specific requirements of the major for a total of 125 credits:
Business Core Curriculum (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
Computer Information Systems Core (24 credits)
Course Title Credits

CIS 125 Systems Analysis \& Design 3
CIS 225 Object-Oriented Analysis \& Design 3
CIS 245 Object-Oriented Programming 3
CIS 301 Enterprise Systems 3
CIS 330 Networking \& Data Communications 3
CIS 351 Database Programming \& Design 3
CIS 440 IT Project Management 3
CIS 484 Information Systems Internship 3
CIS electives ( 12 credits)
Open electives ( 6 credits)

## Bachelor of Science in Computer Information Systems and Accounting

There is a great industry demand for students who wish to specialize in computer information systems with applications in accounting. Students may earn a dual degree in computer information systems and accounting by completing the requirements of the University Curriculum, the School of Business core curriculum, and specific requirements outlined
below for a total of 134 credits:
Business Core Curriculum (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
Accounting Course Work (24 credits)
Course Title Credits
AC 305 Intermediate Accounting I 3
AC 306 Intermediate Accounting II 3
AC 323 Cost Accounting 3
AC 335 Accounting Systems 3
AC 411 Auditing Theory \& Practice 3
AC 412 Advanced Auditing Theory \& Practice
AC 431 Federal Income Tax Procedure
AC 432 Advanced Federal Income Tax Procedure
Computer Information Systems Course Work (24 credits)Course Title Credits
CIS 125 Systems Analysis \& Design ..... 3
CIS 225 Object-Oriented Analysis \& Design ..... 3
CIS 245 Object-Oriented Programming ..... 3
CIS 301 Enterprise Systems ..... 3
CIS 330 Networking \& Data Communications ..... 3
CIS 351 Database Programming \& Design ..... 3
CIS 440 IT Project Management ..... 3
CIS 484 Information Systems Internship ..... 3Open electives (3 credits)
Computer Information Systems MinorThe minor in computer information systems com-plements the major in a wide variety of disciplines.It provides the students with the skills to serve aseffective users of information technology withintheir respective major areas and allows them tobecome more savvy personal consumers of infor-mation technology. The minor is structured to pro-vide each student with the opportunity to selectcourses that support his or her own interests. Theminor in computer information systems requiresthe completion of 18 credits as follows:
Course Title Credits
CIS 101 Introduction to Information Systems ..... 3
CIS 125 Systems Analysis \& Design ..... 3
CIS electives (12 credits)
Minor in Computer Information Systems for Communications StudentsThe minor in computer information systems forstudents in the School of Communications allowscommunications students to become betterequipped to work with information technologyresources commonly used in the communicationsindustry. In particular, the minor focuses on thesuccessfully utilize both information retrieval andinformation deployment resources in an electronicworld. The minor in computer informationsystems for communications students requiresthe completion of 18 credits as follows:Course Title Credits
CIS 101 Introduction to Information Systems ..... 3
CIS 125 Systems Analysis \& Design ..... 3
CIS 257 Information Mining \& Online Communications 3CIS 267 HTML \& Interactive Web Animation3

## Department of Economics

Bachelor of Science in Economics
Minor in Economics

## Bachelor of Science in Economics

Economics majors examine the development and application of economic theory, consider questions relating to social goals and policies, the role of a market economy in attaining those goals, and the relationship between market and non-market institutions. These studies are supplemented by specialized courses such as environmental economics, law and economics, international economics or labor economics.

## Goals

1. To learn the core theories of economics.
2. To become skilled in the application of these theories to business and social problems.
Economics majors have gone on to successful careers in government and business, not only as economists but as buyers, systems analysts, lawyers, securities analysts, bankers, stockbrokers, sales managers and researchers.

## BS in Economics ( 125 credits) <br> Business Core Curriculum (46 credits)

As described on page 93
University Curriculum (37 credits)
As described on page 94

## Required Courses for Economics Majors (12 credits) Course Title Credits

EC 211 Intermediate Macroeconomics
EC 212 Intermediate Microeconomics
EC 250 International Economics
EC 365 Econometrics
Economics Electives (12 credits)
(EC courses numbered 200 or higher)
Open Electives (18 credits)

## Minor in Economics

Students wishing to augment their field of study with the perspective and skills of economics are encouraged to consider a minor in economics. In addition to the University Curriculum economics courses (EC 111, EC 112), the student must complete four economics courses numbered 200 or higher to be approved by the department chair. EC 271 may not be used as part of a minor in economics.

## Department of Engineering

Bachelor of Science in Civil Engineering
Bachelor of Science in Computer Software Engineering
Bachelor of Science in Industrial Engineering Bachelor of Science in Mechanical Engineering

Graduates of the engineering program are prepared for professional practice in engineering and industry as well as for advanced study at the graduate level. Specifically graduates will be able to:

- apply mathematics, science and engineering principles
- design and conduct experiments, analyze and interpret data
- design a system, component or process to meet desired needs
- function on multidisciplinary teams
- identify, formulate and solve engineering problems
- understand professional and ethical responsibility
- communicate effectively
- understand the impact of engineering solutions in a global and societal context
- recognize the need for and possess the ability to engage in lifelong learning. Graduate also will have knowledge of contemporary issues, as well as an ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

An engineering degree prepares you for flexible career and/or education options. In addition to practicing engineering and continuing studies, engineering graduates can earn an MBA, law degree and move into other great careers.
Engineering is a great choice that opens up many paths for the future.

All engineering programs will be assessed in the ongoing ABET cycle of accreditation, self-study, and continuous improvement and will seek initial accreditation at the earliest opportunity, Fall 2016.

## Bachelor of Science in Civil Engineering

The bachelor of science in civil engineering prepares students for careers in civil engineering. Civil engineers design and supervise the construction of roads, buildings, tunnels, tracks, dams, bridges, airports and water supply and sewage systems. Through exposure to the University Curriculum, foundational course work in science and mathematics, major field courses, and extracurricular activities, students graduating with a BS in civil engineering will achieve intellectual proficiencies in critical thinking and reasoning, scientific literacy, quantitative reasoning, information fluency and creative thinking and visual literacy. They also will achieve interpersonal proficiencies in written and oral communication, responsible citizenship, diversity awareness and sensitivity, and social intelligence.

The bachelor of science in civil engineering requires 138 credits as outlined here:

| University Curriculum (46 credits) |  |  |
| :---: | :---: | :---: |
| Course | Title | Credits |
| University Seminars |  |  |
| QU 101 | The Individual in the Community | 3 |
| QU 201 | Seminar on National Community | 3 |
| QU 301 | Seminar on Global Community | 3 |
| English Composition |  |  |
| EN 101 | Element of Composition I | 3 |
| EN 102 | Element of Composition II | 3 |
| Quantitative Literacy |  |  |
| MA 141 | Calculus of a Single Variable I | 3 |
| Scientific Literacy |  |  |
| CHE 110/ |  |  |
| 110L | General Chemistry I with Lab | 4 |
| CHE 111 | General Chemistry II |  |
| or BIO 101 | General Biology I | 3 |
| Social Science |  |  |
| EC 111 | Principles of Microeconomics | 3 |
| Social Scien | nce Elective | 3 |
| Fine Arts |  | 3 |
| Humanities |  | 6 |
| University Curriculum Elective |  |  |
| MA 142 | Calculus of a Single Variable II | 3 |
| MA 229 | Linear Algebra | 3 |
| Foundational Courses for Civil Engineering (22 credits) |  |  |
| MA 241 | Calculus of Several Variables | 3 |
| MA 242 | Integral Calculus \& Differential Eq | s |
| MA 365 | Ordinary Differential Equations | 3 |

CHE 111L General Chemistry Lab II
or BIO 101L General Biology I Lab
PHY 121/
121L Physics I with Lab 4
PHY 122/
122L Physics II with Lab 4
CSC 110 Programming and Problem Solving 4
Common Engineering Curriculum (12 Credits)
ENR 110 Flying Buttresses, Hybrid Cars \& iPads:
The World of an Engineer
3
ENR 210 Engineering Economics \& Project Management 3
ENR 490 Engineering Internship 3
ENR 495 Professional Development Seminar 3
Civil Engineering Courses ( 58 credits)
MER 210/ Fundamentals of Engineering Mechanics
210L \& Design with Lab
4
MER 220/
220 L Mechanics of Materials with Lab 4
MER 310 Thermo Fluid Systems I 3
CER 210 Introduction to CE Infrastructure 3
CER 220 Site Civil 3
CER 310 Basic Structural Analysis 3
CER 320/
320L Design of Concrete Structures with Lab 4
CER 340/ Soil Mechanics \& Foundations
340L Engineering with Lab 4
CER 350 Hydrology \& Hydraulic Design 3
CER 360 Construction Management 3
$\begin{array}{ll}\text { CER } 410 & \text { Fundamentals of Environmental } \\ & \text { Engineering }\end{array}$
CER 420 Transportation Engineering 3
CER 430 Steel Design 3
CER 440 Power Systems 3
CER 498 Design of CE Systems 3
Civil Engineering Electives (3) 9

## Bachelor of Science in

Computer Software Engineering
The bachelor of science in computer software engineering prepares students for careers in computer software engineering. Computer software engineers design and develop software. Using mathematical analysis and computer science principles, they design, create, test and evaluate software applications and systems. Through exposure to the University Curriculum, foundational course work in science, mathematics, major field courses, and extracurricular activities, students graduating with a BS in computer software engineering will achieve
intellectual proficiencies in critical thinking and reasoning, scientific literacy, quantitative reasoning, information fluency, and creative thinking and visual literacy. They also will achieve interpersonal proficiencies in written and oral communication, responsible citizenship, diversity awareness and "sensitivity, and social intelligence.

The bachelor of science in computer software engineering requires 131 credits as outlined here:

| University Curriculum (46 credits) |  |  |
| :---: | :---: | :---: |
| Course | Title | Credits |
| University Seminars |  |  |
| QU 101 | The Individual in the Community | 3 |
| QU 201 | Seminar on National Community | 3 |
| QU 301 | Seminal on Global Community | 3 |
| English Composition |  |  |
| EN 101 | Element of Composition I | 3 |
| EN 102 | Element of Composition II | 3 |
| Quantitative Literacy |  |  |
| MA 141 | Calculus of a Single Variable I | 3 |
| Scientific Literacy |  |  |
| PHY 121/ |  |  |
| 121L | Physics I with Lab | 4 |
| PHY 122 | Physics II | 3 |
| Social Science |  |  |
| EC 111 | Principles of Microeconomics | 3 |
| Social Science Elective |  | 3 |
| Humanities |  | 6 |
| Fine Arts |  | 3 |
| UC Elective |  |  |
| MA 142 | Calculus of a Single Variable II | 3 |
| MA 229 | Linear Algebra | 3 |
| Foundational Courses for Computer Software Engineering (28 credits) |  |  |

PHY 122L Physics II Lab
MA 285 Applied Statistics
MA 305 Applied Discrete Mathematics
CSC 110 Programming \& Problem Solving
CSC 111 Data Structures \& Abstraction 4
CSC 205 Discrete Structures
CSC 210 Computer Architecture \& Organization
CSC 215 Algorithm Design \& Analysis
CSC 225 Introduction to Software Design

## Common Engineering Curriculum (12 Credits)

ENR 110 Flying Buttresses, Hybrid Cars \& iPads: The World of an Engineer
ENR 210 Engineering Economics \& Project Management
ENR 490 Engineering Internship
ENR 495 Professional Development Seminar

## Computer Software Engineering Courses (45 credits)

CSC 310 Operating Systems ..... 3
CSC 325 Database Systems ..... 3
SER 310 Software Engineering Approaches to Human Computer Interaction ..... 3
SER 320 Software Design \& Architecture ..... 3
SER 330 Software Quality Assurance Testing ..... 3
SER 340 Software Requirements Analysis ..... 3
CIS 440 Information System Project Management ..... 3
SER 498 Senior Design Project I ..... 3
SER 499 Senior Design Project II ..... 3
Software Engineering Elective (3) ..... 9Open Electives (3)
Bachelor of Science inIndustrial Engineering

The bachelor of science in industrial engineering prepares students for careers in industrial engineering. Industrial engineers are employed throughout business and industry to research, analyze and determine the most effective and efficient ways to utilize the basic factors of production. Industrial engineers are concerned with increasing productivity through the effective management of people, processes and technology. Through exposure to the University Curriculum, foundational course work in science, mathematics, major field courses, and extracurricular activities, students graduating with a BS in industrial engineering will achieve intellectual proficiencies in critical thinking and reasoning, scientific literacy, quantitative reasoning, information fluency, and creative thinking and visual literacy. They also will achieve interpersonal proficiencies in written and oral communication, responsible citizenship, diversity awareness and sensitivity, and social intelligence.

The bachelor of science in industrial engineering requires 133 credits as outlined here:

## University Curriculum (46 credits)

| Course | Title | Credits |
| :--- | :--- | ---: |
| University | Seminars |  |
| QU 101 | The Individual in the Community | 3 |
| QU 201 | Seminar on National Community | 3 |
| QU 301 | Seminal on Global Community | 3 |
| English Composition |  |  |
| EN 101 | Element of Composition I | 3 |
| EN 102 | Element of Composition II | 3 |
| Quantitative Literacy |  |  |
| MA 141 | Calculus of a Single Variable I | 3 |

Scientific Literacy
CHE 110/ General Chemistry I with Lab 110Lor BIO 101/ General Biology I with Lab101L
PHY 121 Physics I ..... 3
Social Science
EC 111 Principles of Microeconomics3
Social Science Elective
Fine Arts
Humanities
UC Elective
MA 142 Calculus of a Single Variable II3
MA 229 Linear Algebra
Foundational Courses for Industrial Engineering(21 credits)
MA 241 Calculus of Several Variables3
MA 242 Integral Calculus \& Differential Equations ..... 3
MA 365 Ordinary Differential Equations ..... 3
MA 285 Applied Statistics ..... 3
PHY 121L Physics I Lab1
PHY 122 Physics II with Lab122L
CSC 110 Programming \& Problem Solving
Common Engineering Curriculum (12 Credits)
ENR 110 Flying Buttresses, Hybrid Cars \& iPads: The World of an Engineer ..... 3
ENR 210 Engineering Economics \& Project Management ..... 3
ENR 490 Engineering Internship
ENR 495 Professional Development Seminar3
Industrial Engineering Courses ( 57 credits)
MER 210/ Fundamentals of Engineering Mechanics210 L \& Design with Lab4
MER 220/ Mechanics of Materials with Lab ..... 4
220 LMER 221 DynamicsMER 330/ Introduction to Circuits with Lab330L
IER 310 Operations Research for Engineers I34

## University Curriculum (46 credits) University Seminars

QU 101 The Individual in the Community ..... 3
QU 201 Seminar on National Community ..... 3
QU 301 Seminal on Global Community ..... 3
English Composition
EN 101 Element of Composition I ..... 3
EN 102 Element of Composition II ..... 3
Quantitative Literacy
MA 141 Calculus of a Single Variable I ..... 3


| Scientific Literacy |  |  |
| :---: | :---: | :---: |
| CHE 110/ | General Chemistry I with Lab | 4 |
| 110L |  |  |
| CHE 111 | General Chemistry II | 3 |
| or BIO 101 | General Biology I | 3 |
| Social Science |  |  |
| EC 111 | Principles of Microeconomics | 3 |
| Social Science Elective |  | 3 |
| Fine Arts |  | 3 |
| Humanities |  | 6 |
| University Curriculum Elective |  |  |
| MA 142 | Calculus of a Single Variable II | 3 |
| MA 229 | Linear Algebra | 3 |
| Foundational Courses for Mechanical Engineering (22 credits) |  |  |
| MA 241 | Calculus of Several Variables | 3 |
| MA 242 | Integral Calculus \& Differential Equations | 3 |
| MA 365 | Ordinary Differential Equations | 3 |
| CHE 111L | General Chemistry Lab II | 1 |
| or BIO 101L | General Biology I Lab | 1 |
| PHY 122/ | Physics II with Lab | 4 |
| 122L |  |  |
| CSC 110 | Programming \& Problem Solving | 4 |
| Common Engineering Curriculum (12 Credits) |  |  |
| ENR 110 | Flying Buttresses, Hybrid Cars \& iPads: |  |
|  | The World of an Engineer | 3 |
| ENR 210 | Engineering Economics \& |  |
|  | Project Management | 3 |
| ENR 490 | Engineering Internship | 3 |
| ENR 495 | Professional Development Seminar | 3 |
| Mechanical Engineering Courses (49 credits) |  |  |
| MER 210/ | Fundamentals of Engineering Mechanics |  |
| 210L | \& Design with Lab | 4 |
| MER 220/ | Mechanics of Materials with Lab | 4 |
| 2201 |  |  |
| MER 221 | Dynamics | 3 |
| MER 230/ | Materials Science with Lab | 4 |
| 230L |  |  |
| MER 310 | Thermal-Fluid Systems I | 3 |
| MER 320 | Thermal-Fluid Systems II | 3 |
| MER 330 | Introduction to Circuits | 3 |
| MER 330L | Circuits Lab | 1 |
| MER 340 | Engineering System Design | 3 |
| MER 350/ | Heat Transfer with Lab | 4 |
| 350L |  |  |
| MER 498 | Senior Design Project I | 3 |
| MER 499 | Senior Design Project II | 3 |
| Major Field | Electives (3) | 9 |

## Department of Entrepreneurship and Strategy

Bachelor of Science in Entrepreneurship and
Small Business Management
Minor in Entrepreneurship and Small Business
Management

## Bachelor of Science in Entrepreneurship and Small Business Management

Increasingly recognized as an important driver for both the national and international economy, entrepreneurship is more than the creation of a new business venture. Rather, entrepreneurship encompasses seeking opportunity, identifying and acknowledging risk, and, most importantly, persisting until the idea becomes reality. At Quinnipiac University, we strive to develop this perspective in our students; to enable them to apply their entrepreneurial perspective and skills to realize innovative ideas in a variety of settings including profit and not-for-profit organizations, new and exciting ventures, and in business and non-business activities. The development of this perspective has special relevance for the small business environment that many of our students seek upon graduation.

The program includes a rigorous and rounded academic curriculum complemented by extracurricular and service learning involvement in the region's business activity. The program develops entrepreneurial thinking, establishes a foundation in sound business practices along with an appreciation and understanding of the arts and sciences, and hones the skills necessary for successful entrepreneurship and small business management.

This is accomplished through a distinct and innovative curriculum. The program includes traditional classroom-based courses, experiential, distance and service learning, independent study, internships, learning modules, case study and case development. Students compete in regional and national business plan competitions and interact with various agencies and financial institutions supportive of entrepreneur and small business success.

The program involves local, regional and national companies and small business owners sharing their expertise and experiences as an important element in the program's educational process.

## Entrepreneurship and Small Business Management Major

Students majoring in entrepreneurship are required to complete 125 credits.
Business Core Curriculum ( 46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
Entrepreneurship \& Small Business Management Core
Required Courses ( 27 credits)
Course Title
ENT 210 Fundamentals of Entrepreneurship 3
ENT 310 Entrepreneurial Creativity 3
ENT 320 Small Business Marketing 3
ENT 330 Entrepreneurial Finance 3
ENT 340 Opportunity Recognition \& Negotiation 3
ENT 350 Ventures in Social Enterprise 3
ENT 410 Business Plan Creation 3
Plus either:
ENT 420 Entrepreneurial Implementation I
and
ENT 430 Entrepreneurial Implementation II
or two entrepreneurship electives from:
ENT 488 Entrepreneurship Internship
IB 320 Global Entrepreneurship
MG 340 Supply Chain Management
MG $401 \quad$ Project Management
SB 360 International Microloan Funding
Open Electives ( 15 credits)

## Entrepreneurship and Small Business Management Minor

Both business and non-business school students are encouraged to minor in entrepreneurship and small business management. The minor enables students to supplement their main area of interest with the basic skills necessary to create a business plan and engage in the entrepreneurial activities and learning experiences offered by the University.
Required Courses ( 18 credits)
ENT 210 Fundamentals of Entrepreneurship
Plus five courses from:
ENT 310 Entrepreneurial Creativity
ENT 320 Small Business Marketing
ENT 330 Entrepreneurial Finance

ENT 340 Opportunity Recognition \& Negotiation
ENT 350 Ventures in Social Enterprise 3
ENT 410 Business Plan Creation 3
SB 360 International Microloan Funding 3

## Career Possibilities

Although some of the entrepreneurship and small business management majors will indeed launch their own new business or firm upon graduation, most opt to begin their careers in already established organizations. Indeed, many Quinnipiac students come from a family business background and use this program as a vehicle to develop ideas and plans to be implemented when they join the business. Others find that the entrepreneurial perspective they gain through this program, along with the rich portfolio of learning experiences, provides them with skills of interest to prospective employers in a wide range of industries.

Successful completion of the major provides students with documented evidence of their ability to integrate and apply their business acumen in both directed and self-managed activities. This, coupled with a rich network of faculty, staff, businesses and entrepreneurs eager to assist them in attaining their career goals from the moment they enter the program, provides students with the tools they need to successfully navigate a rewarding career in today's business environment.

## Student Activity

The management department values experiential learning and direct contact with businesses, practitioners and entrepreneurs, and so provides students majoring in management and in entrepreneurship and small business management many extracurricular opportunities to expand their skills and stretch their capabilities. These currently include:

1. Students in Free Enterprise: SIFE is an international organization that gives students the opportunity to apply what they have learned about the free enterprise system. SIFE challenges students on more than 1,000 college campuses worldwide to take what they are learning in the classroom and use their knowledge to better their communities. Guided by their faculty advisers, SIFE teams design and conduct a variety of community outreach programs that teach free enterprise. For example, they teach concepts such as budgeting, accounting, and supply and demand. They help
budding entrepreneurs get their plans off the ground and mentor at-risk students, inspiring them to reach for their dreams.
2. Quinnipiac University Entrepreneur Success Team is the Quinnipiac University chapter of the national Collegiate Entrepreneurs Organization. QUEST's mission is to inform, support and inspire college students in any major to be entrepreneurial and seek opportunity through enterprise creation. It sponsors activities and events that promote entrepreneurial thought and spirit throughout the Quinnipiac community. QUEST provides global access to and conversations with a network of collegiate and world-renowned successful entrepreneurs through personal appearances and web site chat rooms.
3. Connecticut Venture Group and the Connecticut State Department of Economic and Community Development sponsor an annual statewide university business plan competition. The competition provides more than $\$ 50,000$ in prize money to student business plans and is designed to educate students in the process of creating and evaluating business ventures; prepare students for opportunities in entrepreneurship during their future careers; and avail students of the use of the resources and skills of CVG members and venture capitalists to further their educational experience. Faculty facilitate and encourage students to enter the contest and assist them in their planning efforts.

## Department of Finance

Bachelor of Science in Finance
Minor in Finance
The Department of Finance is committed to providing high-quality teaching and learning activities so that graduates are well prepared to compete in the global community.

The BS in finance prepares graduates for career opportunities in both the financial services sector as well as in nonfinancial businesses. Students can focus on courses that include Investment Management, including equities and fixed income analysis, asset valuation, and portfolio management; Wealth Management and Financial Planning; and Corporate Finance. The program also prepares students for graduate work in finance, business administration, law and other related disciplines.

## Finance Department Mission

The mission of the Department of Finance is to provide a high-quality educational experience for students; produce high-quality scholarly research; and contribute to the intellectual and cultural life of the University and community.

## Undergraduate Program Objectives

 Introductory financial processes: Develop the ability to explain core financial terms and concepts and their application to real business and financial problems.Advanced financial knowledge: Develop an understanding of modern financial theory and its application to corporate financial decision making, valuation, financial markets and institutions, and portfolio management.

## Critical, analytical and scientific reasoning:

 Develop technical proficiency in gathering information, utilizing databases, and employing standard software to organize, model and analyze data.Social and ethical considerations: Develop an understanding of the importance of ethical considerations in financial practices and decisions.

Student learning opportunities are enhanced by the resources available within the Terry W. Goodwin '67 Financial Technology Center. The center allows student to access real-time financial data, develop financial models, conduct trading simulations and analyze financial and economic data. Students have the opportunity to participate in the Student-Managed Portfolio, an extension of the University's endowment fund. Additional leadership and educational opportunities come from participating in the Global Asset Management Education (G.A.M.E.) Forum as well as intercollegiate "Fed Challenge" and "Investment Research Challenge" and trading competitions.

Extracurricular activities include the Investment Club and the Economics and Finance Club. These student-led organizations sponsor investment challenges, campus speakers and trips to financial marketplaces and institutions. The clubs also provide students peer-centered opportunities to develop their networking, team building and leadership skills. Outstanding students are eligible to be inducted into the Financial Management Association (FMA) National Honor Society.

## Investment Management Focus

Students who seek to focus on a program that prepares them to pursue their interest in careers within the financial services sector, specifically working in the areas of investment banking, portfolio management and investment analysis. Upon completion of the finance core and suggested investment management courses, students will have the educational requirements to sit for the Chartered Financial Analyst (CFA) Level I examination.

## Wealth Management and Financial Planning Focus

The purpose of offering a financial planning track is to allow students to pursue their interest in careers in wealth management, financial planning and retail investment and insurance brokerage services. Graduates also have the opportunity to work within law and accounting firms to provide clients with comprehensive financial plans and services. As part of the curriculum, students receive instruction in risk management and insurance services, investment planning, retirement and estate planning, employee benefit planning and tax planning. Upon completion of the finance core and suggested wealth management and financial planning courses, students will have the educational requirements to sit for the Certified Financial Planner (CFP) certification examination. Additionally, students may elect to sit for the FINRA Series 7, 63, and 66 licensing exams. Alternately, students who take additional required mathematics courses may elect to sit for the Financial Risk Manager (FRM) exams.

## Corporate Finance Focus

Students may wish to focus in courses that prepare them for careers in the nonfinancial sector, mainly the management and operations of large and small corporations. Upon completion of the finance core and suggested corporate finance courses, students will have the educational requirements to sit for the Certified Management Accountant (CMA) certification exam, which demonstrates knowledge and proficiency in corporate financial planning and analysis, decision support and ethics. Alternately, students may prepare to sit for the Certified Treasury Professional (CTP) designation, which exhibits knowledge and skills needed of treasury professionals.

## Bachelor of Science in Finance

Graduation with a BS in finance requires that the student complete 125 credits.

## Business Core Curriculum ( 46 credits)

As described on page 93
University Curriculum (37 credits)
As described on page 94
Finance Core (18 credits)
Course Title Credits

FIN 310 Investment Analysis 3
FIN 320 Financial Modeling 3
FIN $350 \quad$ Financial Markets \& Institutions 3
FIN 360 Financial Statement Analysis 3
FIN 380 Intermediate Corporate Finance 3
FIN 485 Derivative Securities 3
Finance Electives ( 12 credits)
Students must complete 12 credits of finance electives.
Students may apply up to 3 credits from the following courses toward their finance elective requirements:
AC 305 Intermediate Accounting I 3
EC 250 International Economics 3
EC 330 Public Finance 3
EC 365 Econometrics 3
IB 335 International Finance 3
Open Electives (12 credits)

## Minor in Finance

Students wishing to minor in finance must complete FIN 201 Fundamentals of Financial Management, FIN 310 Global Investment Analysis, FIN 320 Financial Modeling, FIN 380 Intermediate Corporate Finance and two finance electives.

Transfer credits may not be used to satisfy the above requirements for a minor.


## Department of International Business

Bachelor of Science in International Business Minor in International Business

The world around us is fast changing and future business leaders need to meet new challenges every day. As new technologies bring international buyers and sellers closer together, opportunities expand for entrepreneurs, small business managers and multinational corporations. In addition, it is critical that we-as voters, as future employees and as citizens of our increasingly globalized worldunderstand the pros and cons of this process. What goes on outside of the United States affects us, and the better we understand it, the better we can operate within it.

Recognizing the necessity of global awareness for success in today's business world, the Department of International Business at Quinnipiac prepares students for a wide range of careers in practically every field and type of organization: business, not-for-profit and government. The following organizations have demonstrated a particular need for graduates in international business:

- manufacturing firms such as start-ups, multinational corporations, or any firm that currently exports, imports or outsources;
- service firms engaged in import-export trading, shipping, banking, insurance, finance, consulting, market research, advertising, accounting, or the law, as well as airlines, hotels and travel agencies;
- government agencies such as the foreign service, consular staff, the Export-Import Bank, and state and federal commerce departments;
- international organizations such as the World Bank, IMF and the United Nations; and
- non-governmental organizations such as Amnesty International, the Red Cross and the Hole-in-the-Wall Gang.
The program's purpose is to offer a curriculum that helps nurture and develop students' abilities and interests. Students are exposed to a multiplicity of perspectives and challenged to develop a broad and inquisitive mindset. Concurrently, practical knowledge and skills also are emphasized through the active development of technical and business-related skills. This dual focus is accomplished through:
- specific functional courses (global entrepreneur-
ship, international negotiation, international finance, international marketing and marketing research, international management, international strategy, global supply chain management) that provide students with the theoretical foundations needed for sound practical decisions;
- a focus on developing key conceptual, analytical and practical competencies, including critical thinking, negotiation skills, global awareness and sensitivity toward cultural differences and ethical issues, commitment for lifelong learning, as well as technology-related abilities such as facility with the Internet and its many applications, and expertise in using spreadsheet programs and other business software;
- the development of an area of competence (ideally a minor) early in the program, with a broad range of options including in business (marketing, finance, etc.) and the arts and sciences (languages, political science, etc.);
- frequent interaction with the local business community through adjunct faculty, guest speakers, participation in smaller projects for local businesses, field trips and international as well as domestic internships; and
- hands-on experience with two certificate programs: export marketing and international purchasing.
Study abroad programs (two to four weeks as well as semester-long) offer the opportunity for immersion in a foreign country to better understand its language, history, politics, business and culture. All students are urged to take advantage of these possibilities, once they meet the necessary requirements (junior or senior status with a minimum GPA of 3.0). Quinnipiac University has semester-abroad programs in Quinnipiac University has semester-abroad programs in various countries such as Austria, Australia, England, Ireland, Italy, France, Germany, Mexico, New Zealand, South Africa and Spain. The University also assists students in seeking out opportunities in a broad spectrum of other countries.

The International Business Society is a student organization that provides opportunities to visit internationally oriented companies in the Northeast, and is active in establishing and strengthening ties with local companies through projects on export and foreign market entry for local business and entrepreneurs.

## Bachelor of Science in International Business

The BS in international business requires the completion of 125 credits.
Business Core (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
International Business Core (21 credits)
Course Title Credits

IB 313 International Marketing \& Marketing Research
IB 320 Introduction to Global Entrepreneurship 3
IB 324 Negotiating Internationally 3
IB 335 International Finance
IB 345 Two-Way Management of the Global Supply Chain
IB 352 International Management 3
IB 401 International Strategy \& Business Plan
International Business Electives ( 6 credits)
Choose two courses ( 6 credits) from any 300 and 400 -level international business elective and/or SB 360.

## Study Abroad Requirement

Students are required to study abroad, ideally for a semester; however, in special circumstances a shorter program is possible. SB 360 fulfills this requirement. Please see the department chair if you have further questions.
Open Electives ( 15 credits)

## International Business Minor

Required Courses (12 credits)
Course Title Credits
IB 201 Globalization \& International Business 3
IB 320 Introduction to Global Entrepreneurship 3
IB 324 Negotiating Internationally
3
IB 352 International Management 3
Plus, choose two courses from the following ( 6 credits):
IB 105 International Business Environment 3
IB 313 International Marketing \& Marketing Research 3
IB 345 Two-Way Management of the Global Supply Chain
IB 335 International Finance 3

IB 355 Advanced Topics in International Financial Management3

IB 362 Research \& Field Experience in the European Union-Part I
IB 363 Research \& Field Experience in the European Union-Part II
IB 401 International Strategy \& Business Plan 3
IB 499 Independent Study in International Business 3

## Department of Management

Bachelor of Science in Management Minor in Management

## Bachelor of Science in Management

The management department's focus is to prepare students to be both effective business leaders and responsible citizens, and to assume executive positions across a variety of business and non-business organizations. To that end, the department has designed its curriculum to provide students with the knowledge, skills and experience base to equip them to fill those roles. The main goals of the major and minor programs are to:

- Educate students about a conceptual framework for creating, organizing and managing a business enterprise in this global environment
- Teach students the intrapersonal and interpersonal skills necessary to manage individuals, groups and teams in the efficient and effective running of an organization in a culturally diverse environment
- Facilitate student understanding of the integration of qualitative and quantitative management skills in planning, decision making and implementation
- Access cocurricular opportunities for students to apply and practice management concepts learned.
The management curriculum is built on a foundation of knowledge that includes the functional disciplines of business covered in the business core, complemented by a range of arts and sciences subjects appropriate to a full and balanced undergraduate education.


## Management Major

Students majoring in management are required to complete 125 credits.
Business Core Curriculum (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94

## Management Core (18 credits)

Course Title Credits

MG 301 Managing Organizations in a Complex Environment
MG 304 Developing Managerial Competence
MG 321 Decision Making for Managers
MG 331 Quality Management
MG 401 Project Management
MG 402 Management Senior Seminar
Management Electives (12 credits)
Take four courses from:
MG 240 Software Applications for Business
MG 256 Fundamentals of Business Plan Creation
MG 315 Self Management
MG 320 Emotional Intelligence in the Workplace
MG 340 Supply Chain Management
Open Electives (12 credits)

## Minor in Management

The minor in management requires:
MG 210 Essentials of Management \&
Organizational Behavior
Plus five additional management courses.

## Department of Marketing and Advertising

Bachelor of Science in Marketing
Bachelor of Science in Advertising
Bachelor of Science in Biomedical Marketing Minor in Marketing

The department seeks to empower students with the knowledge and tools necessary to compete successfully in today's challenging global business environment. Ethical considerations, international aspects and cultural diversity topics are included throughout the department's programs of study. The department aims to offer high-quality teaching and a small-group learning environment. Through a variety of classroom and internship experiences, and global exchange programs, majors are prepared to apply academic concepts to business situations, and also to use them as personal resources in planning their future. In addition, our students are prepared to enhance their knowledge of the field through active pursuit of lifelong learning. In support of these objectives, the department offers its departmental resources to carry out and enhance faculty activities such as classroom teaching, supervision of internships and independent studies, individual and club advising, professional development, research and the ongoing development of these majors.

## Bachelor of Science in Marketing

The Bachelor of Science in Marketing is designed to provide students with a comprehensive understanding of marketing concepts and practices. The marketing major combines core business courses and the technical skills of marketing. The curriculum includes courses such as MK 301 Internet Marketing, MK 334 Product Management, MK 401 Marketing Strategy, MK 210 Consumer Behavior, MK 333 Distribution Management, MK 352 Retail Management, and MK 312 Advertising.

Marketing majors are encouraged to complete a minor in another department such as communications or art. A student chapter of the American Marketing Association is active on campus, and the Quinnipiac University Polling Institute offers opportunities for students to gain hands-on experience conducting survey research.

Students are encouraged to take advantage of the many internship opportunities available to Quinnipiac marketing students.

Graduates find career opportunities in a variety of businesses such as pharmaceutical manufacturers, financial institutions, high-tech firms, retailers, and small businesses. In addition, marketing career opportunities exist outside business organizations, in government, trade associations, health organizations, and not-forprofit institutions. The marketing program also provides students with the necessary prerequisites for graduate education.

The BS in marketing requires the completion of 125 credits as outlined below:
Business Core Curriculum (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
Marketing Core (18 credits)
Course Title Credits
MK 210 Consumer Behavior 3
MK 332 Integrated Marketing Communication 3
MK 333 Distribution Management 3
MK 334 Product \& Pricing Strategy 3
MK 370 Marketing Research 3
MK 401 Marketing Strategy 3
Marketing Electives (complete 6 credits from the following)
MK 301 Internet Marketing 3
MK 312 Advertising 3
MK 315 Media Planning 3
MK 324 Business-to-Business Marketing 3
MK 340 Database Marketing 3
MK 352 Retail Management 3
MK 355 Services Marketing 3
MK 383 Professional Selling \& Sales Management 3
MK 450 Marketing History 3
MK 488 Marketing Internship 3
MK 497 Advertising Competition 3
IB 345 Global Supply Chain Management 3
Open Electives ( 18 credits)

## Minor in Marketing

The marketing minor requires the completion of 18 credits, including MK 201 Marketing Principles, MK 210 Consumer Behavior, MK 370 Marketing Research and 9 additional credits of marketing courses approved by the chair of the department.

## Bachelor of Science in Advertising

The Quinnipiac University advertising program is based on the process by which advertising is planned, created and managed. With its emphasis on the link between advertising and marketing strategy, the bachelor of science in advertising prepares business students for entry-level positions in the advertising field.

The advertising major combines core business courses and fundamental marketing courses (i.e., Marketing Research \& Consumer Behavior) with the technical skills of advertising. The advertising curriculum includes core courses such as
Advertising Principles \& Practices, Integrated Marketing Communications and Advertising Strategy, as well as technical courses such as Media Planning and Advertising Design for New Media and Technology. Courses are designed to challenge students' problem-solving, strategic planning and communications skills in the context of advertising. To prepare for careers in advertising, students are encouraged to participate in an internship program, and seniors either take part in the National Student Advertising Competition or work on a semester-long advertising campaign.

Quinnipiac's BS in advertising degree is unique among Connecticut colleges and universities. Job opportunities exist in independent advertising agencies, advertising media organizations (e.g., television and radio), and in-house advertising departments. The growth of the Internet has provided a new advertising medium, thereby increasing job opportunities. The advertising program also provides students with the necessary prerequisites for graduate education. Students who have an interest in advertising design and creative strategy are encouraged to minor in Interactive Digital Design. With an IDD minor, they can acquire art, design and production skills, and possibly develop a portfolio, which they can present to potential employers.

The BS in advertising requires the completion of 125 credits as outlined below:
Business Core Curriculum (46 credits)
As described on page 93
University Curriculum (37 credits)
As described on page 94
Advertising Core (18 credits)
Course Title Credits
MK 210 Consumer Behavior 3
MK 312 Advertising Principles \& Practice 3

| MK 315 | Media Planning | 3 |
| :---: | :---: | :---: |
| MK 332 | Integrated Marketing Communications | 3 |
| MK 370 | Marketing Research | 3 |
| MK 490 | Seminar in Advertising Strategy | 3 |
| Advertising Electives (complete 6 credits from the following courses): |  |  |
| MK 301 | Internet Marketing | 3 |
| MK 316 | Advertising Design for |  |
|  | New Media \& Technology | 3 |
| MK 324 | Business-to-Business Marketing | 3 |
| MK 325 | Interactive Digital Advertising | 3 |
| MK 383 | Professional Selling \& Sales Management | 3 |
| MK 401 | Marketing Strategy Seminar | 3 |
| MK 488 | Marketing Internship | 3 |
| MK 497 | Advertising Competition | 3 |
| AR 140 | Basic Visual Design | 3 |
| or IDD 160 | Digital Design I | 3 |
| Open Electives (18 credits) |  |  |
| Bachelor of Science in |  |  |
| Biomed | ical Marketing |  |

The marketing of biomedical products, including pharmaceuticals, is a fast growing industry, and a large number of companies specializing in biomedical sciences are located in the Northeast, many in Connecticut. The department offers a degree in biomedical marketing, aimed at satisfying the need for students with knowledge of the fundamentals of marketing as well as an understanding of the science behind the development of biomedical products.

The program requires 27 credits of marketing courses beyond the business core. These courses include traditional marketing core courses (Marketing Research, and Seminar in Marketing Strategy) as well as courses that are important to biomedical marketing and pharmaceutical sales (Business-toBusiness Marketing, Integrated Marketing Communications, Distribution Management, Product Management and Pricing, Professional Selling and Sales Management). An internship is an integral part of the program. Electives include Services Marketing, Database Marketing and Consumer Behavior.

The science requirement is made up of 21 credits including: BMS 117 The Human Organism (with lab), BMS 162 Health and Human Disease (with lab), BMS 276 Drug Development, BMS 203 Introduction to Medical Terminology, CHE 101 Fundamentals of Chemistry I (with lab), and CHE 102 Fundamentals of Chemistry II (with lab).

After completion of the program, a Quinnipiac graduate has a degree unique among colleges and universities in the Northeast. Job opportunities exist in the marketing departments of pharmaceutical companies and biotechnology firms; as medical sales representatives; marketing diagnostic testing products to laboratories; medical equipment to hospitals and clinics; marketing of over-the-counter drugs for consumer product companies.

The bachelor of science in biomedical marketing requires the completion of 123 credits as outlined here:
Business Core Curriculum ( 46 credits)
As described on page 93
University Curriculum ( 27 credits not including science, social science or University Curriculum electives)
Course Title Credits University Seminars
QU 101 The Individual in the Community 3
QU 201 National Community 3
QU 301 Global Community 3
English Composition
EN 101 Elements of Composition I 3
EN 102 Elements of Composition II 3
Quantitative Literacy
MA 118 Introductory Calculus 3
Science
BMS 117 The Human Organism 3
BMS 162 Human Health \& Disease 3
These credits are counted in the biomedical science core outlined below.
Humanities 6
Fine Arts 3
University Curriculum Electives
CHE 101 Fundamentals of Chemistry I 3
CHE 102 Fundamentals of Chemistry II 3
These credits are counted in the biomedical science core outlined below.
Biomedical Science Core ( 20 credits)
BMS 117 The Human Organism 3
BMS 117L The Human Organism Lab 1
BMS 162 Human Health \& Disease 3
BMS 203 Introduction to Medical Terminology 2
BMS 276 Drug Development 3
CHE 101 Fundamentals of Chemistry I 3
CHE 101L Fundamentals of Chemistry I Lab 1
CHE 102 Fundamentals of Chemistry II 3
CHE 102L Fundamentals of Chemistry II Lab 1
Biomedical Marketing Core (24 credits)
MK 324 Business-to-Business Marketing ..... 3
MK 332 Integrated Marketing Communication. ..... 3
MK 333 Distribution Management ..... 3
MK 334 Product \& Pricing Strategy ..... 3
MK 370 Marketing Research ..... 3
MK 383 Professional Selling \& Sales Management ..... 3
MK 495 Biomedical Marketing Internship ..... 3
Biomedical Marketing Electives (complete 3 credits)
MK 210 Consumer Behavior ..... 3
MK 340 Database Marketing ..... 3
MK 355 Services Marketing ..... 3
Open Electives (3 credits)
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## School of Communications

# Ed McMahon Mass Communications Center, School of Business 203-582-3498 (central office) 

Administrative Officers<br>Dean<br>Associate Dean<br>Assistant Dean for Career Services<br>Assistant Dean for Student Services<br>Director of the McMahon Center<br>Associate Director, McMahon Center<br>Departments/Programs<br>Film, Video and Interactive Media<br>Journalism<br>Media Studies (BA in Communications)<br>Public Relations<br>Graduate Programs<br>- MS in Interactive Media<br>- MS in Journalism<br>- MS in Public Relations

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## Mission Statement

The School of Communications' mission is to educate undergraduates, graduate students and professionals to excel in an evolving communications environment. The values that guide our mission are professional ethics and social responsibility, creativity and innovation, passion and inquiry, respect for diversity, freedom of expression, and unfettered access to information.

As a school, we encourage and support research and creative endeavors that contribute to public discourse on national and global issues.

As a community that values a free and open exchange of ideas, critical thinking and informed decision making, we nurture and challenge our students to achieve their full potential.

The school offers bachelor's and master's degrees in disciplines that are becoming increasingly valuable in our society. Students receive practical training in various production techniques, which complement a thorough grounding in communication history, theory and ethics. Communications students also receive a strong foundation in the arts and sciences, which provides a solid, broad-based education. Advanced students arrange internships in professional media organizations. We have relationships with more than 1,000 private and nonprofit organizations and a director of internships to help with student placement. Our educational philosophy embraces experiential learning, and students gain the critical practical experience and training to develop a portfolio of work before they graduate.

On campus, students work in one of the finest university educational facilities in the Northeast-the Ed McMahon Mass Communications Center. The center features a spacious, professional, all-digital high-definition television studio, audio recording studio, a journalism technology center, a multimedia production facility, editing suites and labs, and a screening theater. The center is equipped with state-of-the-art technology and is staffed with highly skilled media professionals to instruct and assist students. As a result, our graduates enter the communications professions equipped with the training, education and experience to excel in their chosen career.

## Undergraduate Studies

## General Requirements

The requirements of the bachelor of arts degree are qualitative and quantitative. Completion of 121 credits (total credits required may vary, depending on the major chosen) with a GPA of C or better is not in itself sufficient to qualify for graduation. Students should be cautioned that an average of C, or 2.0 , in the student's program is a minimum requirement for each major and that some programs may require higher standards as noted. In addition to the general University Curriculum requirements (see p. 22), eligibility for a bachelor of arts degree also requires the satisfactory completion of both School of Communications core and major requirements including those in a program of concentration. Specific major requirements are noted below under the individual program descriptions.

## School Requirements

The undergraduate majors require students to study the political, social, legal and economic institutions that have shaped the media; the artistic heritage through which broadcasting, film, print media and the Internet have developed; and the social and psychological structures which both influence and are influenced by the media. Through a balanced approach, the programs simultaneously develop technical skill and an understanding of the artistic, historical and theoretical traditions on which the disciplines are built.

Students should apply for formal admission to their program of choice by the beginning of sophomore year.

Beyond the University Curriculum requirements, students majoring in any of the programs in the School of Communications must meet the following requirements:

- two courses in a language sequence; the sequence will be determined by placement testing;
- an additional course in the fine arts;
- three additional courses outside the School of Communications, one of which must be at the 200 level or higher
Program Requirements: School of
Communications students are required to achieve a B- or better combined average for the first 9 credits of required courses taken within the School
of Communications (this includes courses offered with prefixes of FVI, JRN, MSS and PRR). If a student fails to achieve a combined average of Bfor these first three School of Communications courses, the student must meet with the associate dean in the School of Communications before receiving permission to begin a fourth course.

If the associate dean grants permission for the student to take a fourth course, the student must achieve, at minimum, a B in that course to continue as a student in the School of Communications.

Students who are asked to transfer out of the school due to noncompliance may opt to select a minor in the School of Communications.

Transfer Students and the B-Rule: Students who transfer from other colleges and universities into the School of Communications and have been given academic credit for the communications core courses taken outside of Quinnipiac University must achieve, at minimum, a combined average of B- in the first two School of Communications courses they take at Quinnipiac.

Transfer credits: The School of Communications only accepts for transfer 12 credits in communications courses.

Minor/concentration requirements: In addition, each student in the School of Communications is required to take a minor or specialized concentration depending on the major selected and with the chair's approval (18 credits). See the specific department program directors for information.

## Advising

Faculty and staff of the School of Communications advise all students. Upon entrance to the school, each student works with one faculty member to select course work in accordance with the student's interests and the school's requirements. Although the primary responsibility for course selection rests with the student, the adviser maintains a file or program plan for the student and aids in proper course selection. Students are not permitted to register without their advisers' approval.

Note: While plan sheets are maintained by school and program advisers, the primary responsibility for the completion of all prerequisites for courses is the student's. Students who take courses without the proper prerequisites, or who complete the prerequisites after taking the courses, may lose credits toward their degree requirements. Students may not repeat a course
for credit except to remove an F grade or, under special circumstances, to remove a C - or D grade in a school requirement, a prerequisite, or a major (refer to page 27 for a description of the grading system).

## Career Services

In the School of Communications, the assistant dean for career services works with students to explore majors and career interests through individual appointments and group sessions, guide them through the career development process, and provide assistance with resume and cover letter writing, interview preparation, conducting a job search and graduate school applications. Students can participate in experiential learning through internships and community service, as well as parttime and summer employment. Workshops on career-related topics are presented each semester, as well as programs connecting students with alumni and employers.

## Degrees in Communications

## Bachelor's Degrees

Communications (see p. 119)
Film, Video and Interactive Media
Journalism
Public Relations

## Master's Degrees (see p. 185)

Master of Science in Interactive Media
Master of Science in Journalism
Master of Science in Public Relations


## Department of Film, Video and Interactive Media

Bachelor of Arts in Film, Video and Interactive Media
Bachelor of Fine Arts in Film, Video and Interactive Media
Minor in Scriptwriting

## Bachelor of Arts in Film, Video and Interactive Media

The Department of Film, Video and Interactive Media offers specialized programs that educate students in contemporary media practice, and demand that they excel as technically accomplished, aesthetically grounded and expressively mature professionals. These programs are dedicated to skilled storytelling and the creation of documentary and narrative works in visual and audio media as well as other informative and entertaining programming for delivery on film, television, DVD, the Internet, mobile devices and all emerging media platforms.

To achieve these goals, students in the Department of Film, Video and Interactive Media are immersed in techniques of visual storytelling that demand expertise in single and multicamera video production and writing and producing for film, radio, television and the Internet. Because we believe that good media practice requires a solid understanding of media history and theory, this curriculum is balanced with courses that explore the role and impact of mass media in society. Formal course work is not only taught on campus but in recent years has taken place in Tralee, Ireland; Nice, France; and in Cape Town and Kruger National Park, South Africa.

Students in film, video and interactive media explore sequentially all dimensions of visual and audio storytelling beginning with the historical, cultural, business and professional contexts within which their own work will develop. They learn to conceive and organize ideas clearly and forcefully through writing and to shape those ideas for expression through image and sound. After mastering a full spectrum of basic techniques, students are immersed in the complex grammar of image and sound editing and the challenging artistry of lighting for both single and multicamera environ-
ments. Mastering the acquisition, composition and manipulation of moving images and sound, they are expected to create and execute compelling narratives; factual or fiction, for current and developing distribution platforms.

Graduates of the film, video and interactive media programs are well positioned to pursue careers in the creation and distribution of a broad range of digital material for all current and emerging media platforms. They are prepared to work for corporate, entertainment and not-for-profit institutions engaged in delivering entertainment and information programming to audiences around the world and have a firm foundation to pursue graduate (MFA) work.

## Programs of Study

The standard degree in film, video and interactive media is the 40 -credit bachelor of arts with an out-of-school minor.

The 61-credit bachelor of fine arts is highly competitive. Candidacy for this degree can only be obtained through a successful separate application that includes three letters of recommendation, a portfolio review and a personal interview. Candidates for the BFA are selected in November or May of a student's sophomore year.

## Bachelor of Arts in Film, Video and Interactive Media Major with non-School of Communications Minor Requirements ( 40 credits)

Required School of Communications core courses (12 credits) Course Title Credits
*MSS 101 Introduction to Media Communications 3
*JRN 160 Introduction to Media Writing 3
*MSS 220 Media History 3
MSS 340 Communications Law \& Policy
*must be completed by the end of sophomore year with a minimum B- average

## Other required FVI courses ( 25 credits)

FVI 210 Production Fundamentals I
FVI 212 Production Fundamentals II
FVI $310 \quad$ Creating Interactive Media
FVI 340 Analysis of the Moving Image
FVI 345 Writing \& Producing Media
FVI 372 Scriptwriting
FVI 450 Senior Seminar
FVI 494 Senior Project Colloquy
FVI 495 Senior Project (capstone)

## Electives, select one (3 credits)

FVI 312 Projects in Interactive Media 3
FVI 320 Film History I 3
FVI 342 Directing Film \& Television 3
FVI 355 Projects in Single-Camera Production 3
FVI 375 Advanced Camera \& Lighting 3
FVI $380 \quad$ Projects in Audio Production 3
FVI $390 \quad$ Projects in Multicamera Production 3
FVI 392 Post-Production Techniques 3
FVI 393 Animation Techniques 3
FVI 397 Summer Production Project 4
COM 490 Internship 3
Other courses with chair's approval.

## Bachelor of Fine Arts in Film, Video and Interactive Media Major

## Requirements (61 credits)

Required School of Communications core courses (12 credits)
Course Title Credits
*MSS 101 Introduction to Media Communications 3
*JRN 160 Introduction to Media Writing 3
*MSS 220 Media History 3
MSS 340 Communications Law \& Policy 3
*must be completed by the end of sophomore year with a minimum B- average
Other required FVI courses (37 credits)
FVI 210 Production Fundamentals I 3
FVI 212 Production Fundamentals II 3
FVI $310 \quad 3$
FVI 320 Film History I 3
FVI 322 Film (\& Television) History II 3
FVI 340 Analysis of the Moving Image 3
FVI 342 Directing Film \& Television 3
FVI 345 Writing \& Producing Media 3
FVI 372 Scriptwriting 3
FVI 450 Senior Seminar 3


## FVI 494

Senior Project Colloquy
FVI 495 Senior Project (capstone)

## COM 490

Internship
Electives, select four (12 credits)
FVI $312 \quad$ Projects in Interactive Media
FVI $355 \quad$ Projects in Single-Camera Production
FVI 375 Advanced Camera \& Lighting
FVI $380 \quad$ Projects in Audio Production
FVI $390 \quad$ Projects in Multicamera Production
FVI 392 Post-Production Techniques
FVI 393 Animation Techniques
FVI 397 Summer Production Project
Other courses with chair's approval.

## Minor in Scriptwriting (19 credits)

The scriptwriting minor, designed for undergraduate students who have majors outside the School of Communications, consists of a survey course in communications (MSS 101), a hands-on video production course (FVI 105 or 210), a media history course (MSS 220), a film theory course (FVI 340 ) and three courses in the art and craft of writing the screenplay (FVI 372, FVI 494 and FVI 495). On completion, this minor can result in the authorship of a full-length screenplay of the student's invention. This minor is not available to students majoring in the School of Communications.

## Minor requirements (19 credits)

Course Title Credits
MSS 101 Introduction to Media Communications 3
FVI 105 Video Essentials 3
or FVI 210 Fundamentals of Production I 3
MSS 220 Media History 3
FVI 340 Analysis of the Moving Image 3
FVI 372 Scriptwriting 3
FVI 494 Senior Project Colloquy 1
FVI 495 Senior Project-Scriptwriting 3


## Department of Journalism

Bachelor of Arts in Journalism Minor in Journalism

## Bachelor of Arts in Journalism

The Quinnipiac undergraduate program in journalism focuses on the principles and practices of news reporting across distribution technologies. The program's mission is to prepare journalism professionals who reflect and can effectively report on the diversity of the human experience. To that end, the program's curriculum emphasizes skills courses, community engagement, racial, ethnic and gender awareness, rigorous scholarly inquiry, and ethical training.

The wide range of elective courses enables students to focus on a specific medium (such as television) or news subject (such as sports).

Students who graduate from the Department of Journalism should be able to:

1. Demonstrate the ability to research, report, write and edit news stories that conform to professional journalism standards, including the ability to apply basic numerical and statistical concepts.
2. Demonstrate command of the techniques used to produce and present news in print, broadcast and digital environments, and understand the interconnectedness of these systems.
3. Demonstrate familiarity with the history of journalism, its social responsibility and the underpinnings of its practice in a culturally and racially diverse society.
4. Understand the implications of the First Amendment and the role journalism plays in a democracy.
5. Engage in the ethical practice of journalism.

## Print Journalism Concentration

Requirements ( 40 credits minimum)
Required School of Communications core courses ( 12 credits)
Course Title Credits
*MSS 101 Introduction to Media Communications 3
*JRN 160 Introduction to Media Writing 3
*MSS 220 Media History 3
MSS 340 Communications Law \& Policy 3
*must be completed by the end of sophomore year with a minimum $B$ - average

Required journalism courses (19 credits)
JRN 105 Electronic News Gathering 1
JRN 260 Reporting
JRN 305 Reporting for the Web
3
JRN 365 Editing for Print 3
JRN 450 Senior Seminar 3
JRN 495 Advanced Reporting for Print (capstone) 3
COM 490 Internship 3
Electives-select three (9 credits)
FVI 372 Scriptwriting
JRN 263 Broadcast News Writing
JRN 291 Reporting for TV
JRN 300 Special Topics in Journalism
JRN 311 Advanced Reporting for TV
JRN 360 Public Affairs Reporting
JRN 361 Sports Reporting
JRN 363 Computer-Assisted Reporting
JRN 372 Entrepreneurial Media
JRN 470 Writing for Magazines
MSS 231 Media \& Society
MSS/WS 311 Diversity in the Media
MSS 345 Media Users \& Audiences
MSS 495 Media Influence
PRR 201 Public Relations Writing
Other courses with chair's approval
FVI 380 Projects in Audio Production ..... 3
PRR 201 Public Relations Writing ..... 3
MSS 231 Media \& Society ..... 3
MSS/WS 311 Diversity in the Media ..... 3
MSS 345 Media Users \& Audiences ..... 3
MSS 495 Media Influence ..... 3
Other courses with chair's approval

## Minor in Journalism

Students wishing to minor in journalism must complete 19 credits chosen in consultation with the department chair.

## Department of Media Studies

Bachelor of Arts in Communications Minor in Media Studies

## Bachelor of Arts in Communications

The mission of the BA in communications program is to equip students with an adaptable approach to the rapidly evolving nature of mediarelated careers. The breadth and flexibility of the major enables a strategic integration of courses in which students learn professional practices, analytical techniques and expertise on the media's wider social, cultural and economic relationships.

The program's required courses foster key learning outcomes that emphasize the skills sought by both demanding employers and competitive graduate programs:

- Effective communication skills to convey ideas clearly and concisely in writing and in oral presentations
- Creative thinking and problem-solving with respect to the challenges and issues facing media industries, professionals and the public
- The ability to conduct, analyze, critique and apply research related to the media
- Understanding of the complex relationships among media institutions, producers, texts, audiences/users and wider society
Communications students obtain positions in diverse professional environments, including television networks, the music industry, public relations and marketing firms, advertising agencies and media research organizations. The program also prepares students to enter graduate training in business, law, journalism, public relations and education.


## Communications

Major requirements ( 39 credits)
Required School of Communications core courses (12 credits)
Course Title Credits
*JRN 160 Introduction to Media Writing 3
*MSS 101 Introduction to Media Communications 3
*MSS 220 Media History 3
MSS 340 Communications Law \& Policy 3
*must be completed by the end of sophomore year with a minimum B- average
$\begin{array}{lll}\text { Other required media studies courses ( } 15 \text { credits) } \\ \text { MSS } 231 & \text { Media \& Society }\end{array}$
MSS 332 Research Methods 3
MSS 450 Senior Seminar 3
COM 490 Internship 3
MSS 495 Media Influence (capstone) 3
Electives-select three ( 9 credits)
MSS/HS 307 The Holocaust
MSS/WS 311 Diversity in the Media 3
MSS 320 Communication Technologies 3
MSS 344 Popular Culture \& the Media 3
MSS/WS 345 Media Users \& Audiences 3
MSS 346 Global Communication 3
MSS 348 Song \& Dance 3
MSS 349/
PO 348 Political Communication 3
MSS 400 Special Topics 3
MSS/SPS 420 Sports, Media \& Society 3
And/or any PRR, JRN or FVI courses
Other non-School of Communications courses with chair's approval
Open elective (3 credits)

## Minor in Media Studies (18 credits)

MSS 101 Introduction to Media Communications 3
MSS 220 Media History 3
MSS 450 Senior Seminar 3
Plus three School of Communications courses (electives) 9

## Department of Public Relations

Bachelor of Arts in Public Relations
Minor in Public Relations

## Bachelor of Arts in Public Relations

The mission of the public relations major is to prepare entry-level practitioners for careers in agency, corporate, government and nonprofit public relations. The program emphasizes research,
writing, campaigns, speaking and service learning. The Quinnipiac University public relations program focuses on helping students acquire the knowledge and skills necessary to manage the relationships between an organization and its publics.

Among the most important proficiencies stressed in the program are critical thinking and reasoning so that graduates can be more than just communicators. They can be counselors to their employers and clients.
Public RelationsMajor requirements (39 credits)Required School of Communications core courses
(12 credits)
Course Title Credits
*MSS 101 Introduction to Media Communications ..... 3
*JRN 160 Introduction to Media Writing ..... 3
*MSS 220 Media History ..... 3
MSS 340 Communications Law \& Policy ..... 3
*must be completed by the end of sophomore year with aminimum B- average
Other required communications courses ( 18 credits)
PRR 101 Principles of Public Relations ..... 3
PRR 201 Public Relations Writing ..... 3
PRR 332 Public Relations Research ..... 3
PRR 450 Senior Seminar ..... 3
PRR 495 Public Relations Campaigns ..... 3
COM 490 Internship ..... 3
Electives-select two (6 credits)
PRR 311 Sports Public Relations ..... 3
PRR 341 Corporate Public Relations ..... 3
PRR 343 Nonprofit Public Relations ..... 3
PRR 344 International Public Relations ..... 3
PRR 345 Investor Relations ..... 3
PRR 346 Health Care Public Relations ..... 3
PRR 400 Special Topics ..... 3
Other courses with chair's approval
Open elective ( $\mathbf{3}$ credits)
Any School of Communications elective ..... 3
Minor in Public Relations (18 credits)
PRR 101 Principles of Public Relations ..... 3
JRN 160 Introduction to Media Writing ..... 3
PRR 201 Public Relations Writing ..... 3
Plus three School of Communications courses (electives)
School ofHealth Sciences
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Department of Occupational Therapy ..... 139
Department of Physical Therapy ..... 143

## School of Health Sciences

## North Haven Campus, Building 1 <br> Echlin Center, second floor <br> 203-582-8710 (central office)

Administrative Officers<br>Dean<br>Associate Dean<br>Associate Dean<br>Assistant Dean for Career Services

## Departments/Programs

Undergraduate Programs
Athletic Training
Biomedical Sciences
Biomedical Sciences
Health and Science Studies
Microbiology/Molecular Biology
Diagnostic Imaging

## Combined Undergraduate/Graduate Programs

Entry-Level Master's Physician
Assistant Program
Occupational Therapy
MOT Occupational Therapy
Physical Therapy DPT Program

## Graduate Programs

Biomedical Sciences
MHS Anesthesiologist Assistant
MHS Cardiovascular Perfusion
MHS Medical Laboratory Sciences
MHS Pathologists' Assistant
MHS Physician Assistant
Diagnostic Imaging
MHS Radiologist Assistant
Post-Professional Programs
Occupational Therapy
Online MSOT Program

|  | Phone |
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## Mission Statement

The belief that access to good health care is an individual's right is prominent in our society. Underscoring this belief is the need to make adequate health services and health personnel available and to develop an environment that is conducive to good health and long life. The School of Health Sciences is committed to developing professionals through comprehensive careeroriented programs at the bachelor's, master's and clinical doctorate levels. To this end, the school has developed a series of aims upon which it conceives, plans, develops and evaluates its educational programs to ensure the following:

- Programs are based upon a comprehensive foundation in the liberal arts and sciences.
- Opportunities are provided for those who wish to pursue careers in health care delivery and basic science preparation.
- Scientific knowledge is supplemented by actual and simulated clinical and field experiences locally and throughout the country.
- Innovative, flexible programs meet both present and future needs of the health care system.
- Opportunities to maintain and upgrade skills through courses are designed with the option to pursue graduate education.
- Faculty engage in research that informs their teaching and contributes to their clinical and/or professional discipline.


## Career Services

In the School of Health Sciences, the assistant dean for career services works with students to explore majors and career interests through individual consultations and group sessions, and guides them through a career development process. Assistance is provided with resume and cover letter writing, interview preparation, conducting a job search and graduate school applications. Students can participate in experiential learning through community service as well as internships, part-time and summer employment. A health professions career fair is held every spring at the North Haven Campus.

## Degrees in Health Sciences

Please note-Academic programs with clinical components use multiple clinical education centers. Students are responsible for their transportation to and from these clinical agencies.

## Background Checks

Students should be aware that certain clinical sites or internship locations may require a criminal background check before a student is placed in the clinic or intern site. The University has procedures to assist students in obtaining such a background check. The cost of the background check is the responsibility of each individual student.

Bachelor's Degrees

Athletic Training
Biomedical Sciences
Diagnostic Imaging
Health and Science Studies
Microbiology/Molecular Biology

## Graduate Degrees

Five-year Master's in Biomedical Sciences
Master of Health Science
Anesthesiology Assistant (pending approval)
Cardiovascular Perfusion
Medical Laboratory Sciences
(with concentrations in biomedical sciences and microbiology)
Pathologists' Assistant
Physician Assistant
Radiologist Assistant
Master of Occupational Therapy
Entry-level Doctor of Physical Therapy

## Entry-Level Master of

 Occupational Therapy (MOT)This $51 / 2$-year degree program is the only track for new freshmen. As part of the program, students first earn a BS in health and science studies. See p. 139.

## Post-Professional Master of Science in Occupational Therapy

This unique program is designed for practicing occupational therapists and combines online learning with residency requirements. For information, contact quonlineadmissions@quinnipiac.edu. See p. 206.

## Five-Year Master's in Biomedical Sciences

In addition to its four-year bachelor of science degree in biomedical sciences, the Department of Biomedical Sciences offers a five-year master's degree in biomedical sciences. This program allows students who qualify to complete their master's degree immediately following the four-year undergraduate program. To qualify for this program, the student must earn a minimum GPA of 3.0 after the third year of the program. Students who do not attain this GPA may continue on with the four-year undergraduate degree program in biomedical sciences.

## Entry-Level Master's Radiologist Assistant

This 24-month program is designed for radiologic technologists already possessing a bachelor's degree in the field. The program prepares advanced practitioners in the field of radiography.
See p. 205.

## Entry-Level Master's Physician Assistant

This six-year degree program is designed for qualified students who enter as freshmen earning a BS in health and science studies. After successful completion of the undergraduate curriculum, they enter the graduate physician assistant program. See pp. 134 and 203.

## Entry-Level Doctor of Physical Therapy (DPT)

This six- or seven-year degree program is the only track for new physical therapy students and begins in the freshman year. As part of the program, students first earn a bachelor of science in health and science studies. See p. 144.

## Certificates

Post-Professional Certificate of Advanced Graduate Study in Occupational Therapy See p. 207.

## Department of Athletic Training and Sports Medicine

Bachelor of Science in Athletic Training

## Bachelor of Science in Athletic Training

The athletic training program in the Department of Athletic Training and Sports Medicine functions within the mission and goals of the institution. Quinnipiac University acknowledges its role in providing a supportive and stimulating environment for the intellectual and personal growth of the students. The primary mission of the athletic training program is to provide a quality education program through which students may obtain the knowledge and psychomotor skills necessary to practice as athletic trainers certified by the Board of Certification. Importance is placed upon the provision of opportunities within the curriculum for the development of skills encompassing the domains of athletic training.

Strong emphasis is placed on the practical clinical experience coupled with specific professional course work. Recognizing the importance of excellence in teaching and instruction, the faculty, in its commitment to the combination of diverse clinical and intellectual experiences, collaborates in educating students. Through successful completion of the athletic training program, graduates are prepared to enter the profession of athletic training and assume a leadership role.

The athletic training program offers a highly personalized learning environment featuring small classes and ready access to faculty, reflecting the University's commitment to excellence in teaching, as well as support for scholarship and professional development. The athletic training and sports medicine faculty share a service orientation toward the students and their needs. The program also strives to prepare graduates who manifest critical and creative thinking, effective communication skills, informed value judgments, and who possess an educational foundation for continued growth and development in a changing world of diverse cultures and people.

## Admission to the Program

Candidates applying for admission to the athletic training program from high school are required to have not less than three years of high school college preparatory mathematics, one year of biology, one year of chemistry and one year of physics. In addition, the scores of the SAT or the ACT are an important consideration. Related health care experience is highly desirable. Prospective candidates also must satisfy general Quinnipiac University admission requirements.

All applications must include three letters of reference, and a personal interview may be required with representatives of the admissions office to discuss program requirements and the applicant's professional interests and commitments.

Applications are accepted for admission to the fall semester only.

Admission to Quinnipiac University does not guarantee admission to the program in athletic training, unless officially accepted into the program. Students enrolled in the program's preprofessional component (semesters 1-3) must achieve a B- or better in AT 114, AT 115, AT 116, AT 214, AT 216 and AT 250 and a minimum cumulative GPA of 2.67 upon completion of all additional preprofessional requirements including all program science and math requirements to qualify for admission into the professional component of the program ( D and F grades in the required science and math courses are unacceptable).

All AT courses must be taken and completed at Quinnipiac University. Professional component students (semesters 4-8) must earn at least a Bin all professional component courses and maintain a GPA of 3.0 each semester during the professional component. Students who fail to maintain these grade requirements are subject to dismissal from the program.

Students enrolled in the athletic training program, or other majors that provide prerequisite requirements for the graduate DPT program may apply for entry into the three-year doctor of physical therapy graduate program using the Physical Therapy Centralized Application Service (PTCAS) during the senior year of their BS program. Admission is competitive and is based on performance and space availability.

Freshmen enrolled in the dual major AT-DPT program with the guarantee of admission into the graduate DPT program based upon successful
completion of program requirements must complete the AT-BS program prior to enrollment in the graduate DPT program. If students enrolled in the AT-DPT dual program do not complete the AT-BS, they must re-apply to the DPT program via the centralized application process.

## Technical Standards for Admission

The athletic training program is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the athletic training program establish the essential qualities considered necessary for admitted students to this program to achieve the knowledge, skills and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency: Commission on Accreditation of Athletic Training Education (CAATE).

All students admitted to the program must meet the established abilities and expectations. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted or may be dismissed from the program.

Candidates for selection to the program are required to verify they understand and meet the technical standards or that they believe that, with certain reasonable accommodations, the technical standards can be met. Verification of understanding includes the student reading, signing and returning a copy of the Technical Standards Agreement to the program director prior to arrival on campus in the fall semester. A listing of the technical standards and an agreement form for the athletic training program can be found on the program's web page (www.quinnipiac.edu). If the student fails to complete the agreement form prior to the first day of classes, the student is admitted to the University but may be required to reapply for the athletic training program.

## Background Check

All students entering the athletic training program, and the health care profession in general should be aware that most professional credentialing agencies require a background check prior to awarding
professional credentials. Information regarding background checks for those seeking to become certified athletic trainers can be found at www.bocatc.org.

For athletic training, the affidavit portion of the exam application requires candidates to report any felony or misdemeanor conviction. During the application process for the national certifying examination, candidates must submit an explanation of the events that led to the conviction(s), copy of court documents(s), including, but not limited to, an arrest report, sentence recommendation, compliance of all court requirements and proof of payment of all related fines.

Candidates may request a predetermination of eligibility at any time by submitting their documentation prior to their application. The Professional Practice and Discipline Committee reviews all convictions. Candidates are notified in writing of the committee's decision. Please review the Professional Practice and Disciplinary Guidelines and Procedures for details.

Students enrolled in the Quinnipiac University athletic training program may be required to complete a criminal and sex offender background check prior to completion of clinical rotations.

## Transfer Students from Other Colleges and Universities

Transfer students from other colleges and universities may be accepted into the athletic training program based on space availability. These students must meet the course requirements, performance standards (GPA of 2.67) and technical standards of the program. The students must complete the general science requirements, AT 114, AT 115, AT 116, AT 214, AT 216 and AT 250 prior to entry into the professional component of the program or the fourth semester of the course sequence. AT 114, AT 115, AT 116, AT 214, AT 216 and AT 250 must be taken at Quinnipiac. Athletic training courses from the student's previous institution will not be considered for replacement of BMS 300, BMS 301 or any of the athletic training courses offered at Quinnipiac.

## Transfer Students from within Quinnipiac

Students currently attending Quinnipiac in another program may be accepted into the athletic
training program based on space availability and review of qualification by the program director. Students may apply through the department upon completion of the general science requirements, AT 114, AT 115, AT 116, AT 214, AT 216 and AT 250 and prior to entry into the professional component of the program or the fourth semester of the course sequence. These students must meet the course requirements, performance standards (GPA of 2.67) and technical standards of the program.

## Course of Study: <br> Athletic Training Program <br> Preprofessional Component

Examination and an evaluation of high school units presented determine initial placement in the English and mathematics courses. The minimum mathematics requirement is MA 275. It is strongly suggested that biology and athletic training courses are completed in the appropriate semesters as indicated. The following courses must be completed with a C - or better and a minimum GPA of 2.67 .
Course

Credits

BIO 101-102 General Biology I \& II 8
BIO 211-212 Anatomy \& Physiology I \& II 8
8
CHE 101-102 Fund. of General, Organic \& Biological Chemistry I \& II
MA 275 Biostatistics

Where applicable, courses may be used to satisfy University Curriculum requirements. Progression to the professional component occurs in the fourth semester or second year, spring semester.

The following courses must be completed with a minimum of a B - at Quinnipiac and prior to entry into the professional component of the athletic training program. All AT courses must be taken at Quinnipiac.
AT 114 Introduction to Athletic Training/ Sports Medicine2

AT 115 Introduction to Kinesiology 3
AT 116 Introduction to Fitness \& Conditioning 2
AT 214 Care \& Prevention of Athletic Training 3
AT 216 Emergency Management of Athletic Trauma 3
AT 250 Introduction to Evaluation \& Treatment of Musculoskeletal Injuries

## Professional Component

The Admissions Progression and Retention Committee for the program in athletic training is responsible for evaluating and screening candidates for the professional component of the program. Program requirements are established in conjunction with the guidelines established by the Educational Council of the National Athletic Trainers' Association and are acceptable to the school and University administration. While a good deal of the athletic training students' clinical assignments (clinical practicum I-V) occur at Quinnipiac, off-campus assignments also are required. Students are responsible for transportation to and from all off-campus sites and should plan to have a vehicle by the fourth semester. Most off-campus sites are within 15 miles from the main campus. Moreover, students involved in varsity athletics normally require additional semester(s) to complete the program.

## BS in Athletic Training Curriculum Course Title Credits

| Fall Semester, First Year |  |
| :--- | :--- |
| BIO 101 | Science (UC) |
| CHE 101 | Fundamentals of Chemistry I |
| EN 101 | Freshman Composition (UC) |
| UC | Fine Arts |
| QU 101 | The Individual in the Community |

Total 17

## Spring Semester, First Year

AT 114 Introduction to AT/SM 2
AT 115 Introduction to Kinesiology 3
AT 116 Introduction to Fitness \& Conditioning* 2
BIO 102 Science (UC) 4
CHE 102 Fundamentals of Chemistry II 4
EN 102 Freshman Composition (UC) 3
Total 18
Students enrolled in the AT/DPT dual program or interested in certain graduate programs should substitute CHE 110/111 for CHE 101/102.

## Fall Semester, Second Year

AT 214 Care \& Prevention of Athletic Injuries* 3
AT 216 Emergency Management of Athletic Trauma* 3
AT 250 Introduction to Evaluation \&
Treatment of Musculoskeletal Injury* 4
BIO 211 Anatomy \& Physiology I 4
MA 275 Quantitative Literacy (UC) 3
Total 17

## Spring Semester, Second Year

AT 215 Therapeutic Modalities* 4
AT 235 Evidence-Based Practice 2
$\begin{array}{lll}\text { AT } 251 & \text { Evaluation \& Treatment of the Lower } \\ & \text { Extremity Musculoskeletal Injuries* } & 4\end{array}$
AT 290 Clinical Practicum I* 3
BIO 212 Anatomy \& Physiology II 4
Total 17
Fall Semester, Third Year
AT 330 Nutrition for Sports \& Fitness 3
$\begin{array}{ll}\text { AT } 350 \text { Evaluation and Treatment of the Upper } \\ & \text { Extremity Musculoskeletal Injuries* }\end{array}$
AT 390 Clinical Practicum II* 3
BMS 300 Physiology of Human Performance I 4
QU 201 The National Community 3
Total 17

## Spring Semester, Third Year

AT 351 General Medical Assessment \& Treatment* 4
AT 352 Evaluation \& Treatment of the Spinal Injuries* 4
AT 391 Clinical Practicum III* 1
BMS 301 Physiology of Human Performance II 4
PSY 101 Social Sciences (UC) 3
Total 16
Fall Semester, Fourth Year
AT 450 Administration \& Management 3
AT 490 Clinical Practicum IV* 1
PSY 272 Abnormal Psychology 3
QU 301 Seminar on Global Community 3
UC UC elective 3
Total 13
Spring Semester, Fourth Year
AT 491 Clinical Practicum ${ }^{*}$ 3
UC UC elective 3
UC Humanities 3
UC Humanities 3
Total 12
Total Credits 127
Students admitted to the AT/DPT dual major need to take PHY 110, PHY 111 and MA 141 (Total credits 132).
*These AT courses have a laboratory and/or clinical component.
The curriculum for the professional component is subject to modification as deemed necessary to present to the students a progressive and meaningful educational experience.

A GPA of 3.0 must be maintained each semester during the professional component; $\mathrm{C}, \mathrm{D}$ and F grades are unacceptable in the professional component of the program.

## Department of Biomedical Sciences

Bachelor of Science in Biomedical Sciences Bachelor of Science in Health and Science Studies Bachelor of Science in Microbiology/Molecular Biology
Entry-level Master's Physician Assistant
Five-Year Master of Health Science
(concentration in Biomedical Sciences)
Minor in Biomedical Sciences
Minor in Microbiology/Molecular Biology
The programs within the Department of Biomedical Sciences are designed to provide students with knowledge and skills of the rapidly expanding fields of basic science, medicine and research. The integration of courses from these areas with a broad range of courses taken from other disciplines such as the arts and sciences and business provides the student with the maximum educational background and the critical thinking skills required to succeed in the increasingly demanding field of biomedical sciences.

The department offers four programs leading to the bachelor of science degree. These include microbiology/molecular biology, biomedical sciences, health and science studies and an entry-level master's physician assistant program. Because of the expansion of medical information and techniques, the department also offers several graduate degree programs including physician and pathologists' assistant, medical laboratory science with specialties in biomedical sciences, microbiology and laboratory management, and molecular and cell biology. The focus of each of these programs is to educate students for the critical thinking necessary to function successfully within their chosen profession.

The Department of Biomedical Sciences integrates and coordinates the activities of related biomedical sciences programs that may be conveniently grouped under the generic title "biomedical sciences." The inclusion of these programs, which have many elements in common, under the direction of a single administrative unit, encourages the mixing of ideas and disciplines. It allows both the lateral and the upward mobility of students enrolled in closely related curricula and permits the faculty to cut across traditional disciplinary boundaries.

The rapid expansion of basic medical information, methodology and technology in
recent years has increased the demand for specially trained personnel to perform in the clinical and research laboratories of hospitals, medical schools and government health facilities, and in the pharmaceutical and biotechnology industries. The health care system has a need for development of interdisciplinary skills to keep pace with sophisticated scientific developments and their applications in the biomedical sciences.

## Bachelor of Science in Biomedical Sciences

The Department of Biomedical Sciences offers a bachelor of science degree in biomedical sciences. The curriculum for this degree program provides the student with a solid foundation in the basic and biomedical sciences, which allows the student to pursue many different avenues of opportunity depending upon his/her goals and interests. In addition to courses in science and mathematics, students are required to take a selection of University Curriculum courses (designated UC on the curriculum). The entire curriculum is designed to provide students with a strong program in basic and biomedical sciences, as well as a well-rounded educational experience through the University Curriculum.

Students completing this degree may qualify for employment in the pharmaceutical and biotechnology industries; the medical diagnostics industry; university-based biomedical research; and city, state and federal health/research laboratories. Additionally, a student with this degree may wish to continue his/her education in graduate/professional school in: biological and/or biomedical sciences, medicine, dentistry, veterinary medicine, physician assistant, pathologists' assistant, forensic sciences, microbiological sciences, molecular biology, biotechnology, toxicology, neurobiology, plus many other areas.

Students who excel in this program ( $>3.2$ GPA overall and in science/math) may be eligible for an internship in an area company sometime after the junior year. This depends upon the availability of internships at the particular time. Additionally, students who excel may participate in a research project with a faculty member.

Admission to this program is dependent on the applicant's potential to pursue a university program and on past academic performance. Transfer stu-
dents wishing to enter this program will be given appropriate transfer credit for previous college work.

The technical standards for individuals working in the biomedical field may include the following abilities: to effectively communicate via oral and written expression; exhibit general fine motor skills and hand-eye coordination appropriate to performing delicate procedures; distinguish between subtle shades of color; read comprehend, and interpret scientific/medical information from professional sources. Reasonable accommodations will be considered on a case-by-case basis.

To remain in good standing within the program, the student must maintain a GPA of 2.5 overall, as well as in math and science. The program curriculum is outlined below.

## Biomedical Sciences Curriculum <br> Course Title Credits

Fall Semester, First Year
BIO 101 Science (UC) 4
CHE 110 General Chemistry I 4
EN 101 Freshman Composition (UC) 3
QU 101 The Individual in the Community 3
MA 140 Quantitative Literacy (UC)
Spring Semester, First Year
BIO $102 \quad$ Science (UC)
CHE 111 General Chemistry II 4
EN 102 Freshman Composition (UC) 3
UC Social Sciences 3
UC Humanities 3
Total 17
Fall Semester, Second Year
BIO 211 Anatomy \& Physiology I 4
CHE 210 Organic Chemistry I 4
PHY 110 General Physics I 4
UC Social Sciences 3
Total 15
Spring Semester, Second Year
BIO 212 Anatomy \& Physiology II
CHE 211 Organic Chemistry II
PHY 111 General Physics II
QU 201 Seminar on National Community
au

| Fall Semester, Third Year |  |
| :--- | :--- |
| BMS 370 | General Microbiology |
| CHE 315 | Biochemistry |
|  | Science elective |
| MA 275 | UC elective |
| BIO 298 | Research Methods in Biology |

Total 15
Fall Semester, Third Year
BMS 370 General Microbiology
4
CHE 315 Biochemistry 4
MA 275 UC elective
BIO 298 Research Methods in Biology
Spring Semester, Third Year
BMS 375 Immunology ..... 4
Science elective ..... 4
QU 301 Seminar on Global Community ..... 3
UC elective ..... 3
Total 14
Fall Semester, Fourth Year
BMS 318 Pathophysiology ..... 3
UC Fine Arts ..... 3
UC Humanities ..... 3
Science elective ..... 3
Science elective ..... 3
Total 15
Spring Semester, Fourth Year
BIO 471 Molecular Genetics ..... 4
Science elective ..... 4
BIO 346 Cell Physiology ..... 4

For more information about the undergraduate biomedical sciences program, please contact the chair of the Department of Biomedical Sciences.

## Biomedical Sciences Minor

The Department of Biomedical Sciences offers a minor in biomedical sciences, which provides students with a fundamental knowledge of the theories, principles and advances in these basic sciences. Completing this area of concentration may help students qualify for employment in the pharmaceutical and biotechnology industries; the medical diagnostics industry; university-based biomedical research; and city, state and federal health/research laboratories or to continue their education in graduate/professional school. This concentration helps students develop critical thinking skills and understand and utilize modern research laboratory technologies.

The BMS minor consists of 20-24 credits (six classes), at least two of which must be labbased, with a grade of "C or better. No more than two classes may be transferred in from other institutions. The same course cannot count toward a minor in microbiology and biomedical sciences.

| Courses for the BMS Minor |  |  |
| :---: | :---: | :---: |
| Course | Title | Credits |
| BMS 200 | Biology of Aging | 3 |
| BMS 318 | Pathophysiology | 3 |
| BMS 320 | Pharmacology | 3 |
| BMS 325 | Toxicology | 3 |
| BMS 330 | Endocrinology | 3 |
| BMS 213 | Microbiology \& Pathology | 4 |
| or BMS 370 | Microbiology, with lab | 4 |
| BMS 372 | Pathogenic Microbiology, with lab | 4 |
| BMS 375 | Immunology, with lab | 4 |
| or HSC 375 | Clinical Immunology <br> (take BMS 375 or HSC 375 not both) | 3 |
| BMS 378 | Vaccines | 4 |
| BMS 470 | Virology | 4 |
| BMS 472 | Biotechnology | 4 |
| BMS 473 | Infections of Leisure | 3 |
| BMS 474 | Power of Plagues | 3 |
| BMS 475 | Current Topics in Microbiology | 4 |
| BMS 482 | Independent Study (may be taken twice) | 3-4 |
| Graduate Courses for the BMS Minor (permission required) |  |  |
| BMS 570 | Virology <br> (take BMS 470 or BMS 570 not both) | , |
| BMS 595 | Transplantation Immunology | 3 |
| Five-Year Master of Health Science (concentration in Biomedical Sciences) |  |  |
| Fall Semester, First Year |  |  |
| BIO 101 | Science (UC) | 4 |
| CHE 110 | General Chemistry I | 4 |
| EN 101 | Freshman Composition (UC) | 3 |
| QU 101 | Individual in the Community | 3 |
| MA 140 | Quantitative Literacy (UC) ${ }^{1}$ | 3 |
|  |  | Total 17 |
| Spring Semester, First Year |  |  |
| BIO 102 | Science (UC) | 4 |
| CHE 111 | General Chemistry II | 4 |
| EN 102 | Freshman Comp. (UC) | 3 |
| UC | Social Sciences | 3 |
| UC | Humanities | 3 |
|  |  | Total 17 |
| Fall Semester, Second Year |  |  |
| BIO 211 | Anatomy \& Physiology I | 4 |
| CHE 210 | Organic Chemistry I | 4 |
| PHY 110 | General Physics I | 4 |
| MA 275 | UC Elective | 3 |
|  |  | Total 15 |
| Spring Semester, Second Year |  |  |
| BIO 212 | Anatomy \& Physiology II | 4 |
| CHE 211 | Organic Chemistry II | 4 |

BMS 200 Biology of Aging 3
BMS 318 Pathophysiology 3
BMS 320 Pharmacology 3
BMS 325 Toxicology 3
BMS 330 Endocrinology 3
BMS 213 Microbiology \& Pathology 4
or BMS 370 Microbiology, with lab 4
BMS 372 Pathogenic Microbiology, with lab 4
BMS 375 Immunology, with lab 4
or HSC 375 Clinical Immunology 3
(take BMS 375 or HSC 375 not both)
BMS 378 Vaccines
BMS 470 Virology 4
BMS 472 Biotechnology 4
BMS 473 Infections of Leisure 3
BMS 474 Power of Plagues 3
BMS 475 Current Topics in Microbiology 4
BMS 482 Independent Study (may be taken twice) 3-4
Graduate Courses for the BMS Minor (permission required)
BMS 570 Virology

## Five-Year Master of Health Science

 Fall Semester, First YearEN 101 General Chemistry I (UC)
QU 101 Individual in the Community 3
MA 140 Quantitative Literacy (UC) ${ }^{1} 3$
Total 17
Spring Semester, First Year
BIO 102 Science (UC)
CHE 111 General Chemistry II 4
EN 102 Freshman Comp. (UC) 3
UC Social Sciences 3

Total 17
Fall Semester, Second Year
BIO 211 Anatomy \& Physiology I 4
CHE 210 Organic Chemistry I 4
PHY 110 General Physics I
Total 15
Spring Semester, Second Year
CHE 211 Organic Chemistry II
4
PHY 111 General Physics II ..... 4
QU 201 The National Community ..... 3
Total 15
Fall Semester, Third Year
BMS 370 General Microbiology ..... 4
CHE 315 Biochemistry ..... 4
Science Elective ..... 3
BIO 298 Research Methods in Biology ..... 3
Total 14
Spring Semester, Third Year
BMS 375 Immunology ..... 4
UC Social Sciences ..... 3
Science Elective ..... 4
QU 301 The Global Community ..... 3
Total 14
Fall Semester, Fourth Year
BMS 518 Pathophysiology ..... 3
Science Elective ..... 3
Science Elective ..... 3
UC Fine Arts ..... 3
UC Humanities ..... 3
Total 15
Spring Semester, Fourth Year
BIO 568 Molecular \& Cell Biology ..... 4
BIO 346 Cell Physiology ..... 4
BMS 579 Molecular Pathology ..... 3
UC UC Elective
Fall Semester, Fifth Year
(all graduate courses)
BMS Specialization Course ..... 4
BMS Specialization Course ..... 3
BMS Elective ..... 4
BMS Elective ..... 3
Total 14
Spring Semester, Fifth Year
(all graduate courses)
BMS Specialization Course ..... 4
BMS Specialization Course ..... 3
BMS Elective ..... 4
BMS Elective ..... 3
BMS 670 Comprehensive Exam² ..... 2
Total 16

Total Credits 151
${ }^{1}$ Minimum mathematics requirement: MA 140 (Pre-Calculus) and MA 275 (Biostatistics). For those interested in graduate or professional school, MA 141-142 (Calculus) is recommended. ${ }^{2}$ The comprehensive exam must be completed by April 15 of the 5th year.

## Premedical Studies Program

Students in majoring in biomedical sciences may fully participate in the premedical studies program.
The curriculum in this degree program can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.

## Bachelor of Science in Health and Science Studies

The bachelor of science program in health and science studies is designed for students entering the School of Health Sciences who have interest in the basic sciences and health-related career paths at both the undergraduate and graduate levels. Upon admission, students choosing this option are assigned to academic advisers who will assist them in designing a customized program to meet their career goals.

For many students, the BS in health and science studies is a foundation degree, which prepares them for specific graduate programs offered by the University. For example, students pursuing the $5^{1 / 2}$-year bachelor's/master's degree in occupational therapy, the six- or seven-year entry-level doctor of physical therapy, and the six-year bachelor's/ physician assistant programs all complete their undergraduate bachelor of science requirements in health and science studies prior to entering the professional phase of their program.

Qualified students may complete the bachelor of science in health and science studies and move directly into graduate programs in cardiovascular perfusion (total of six years), medical laboratory sciences (total of five years), or radiologist assistant (total of six years); move into the MBA in health care management in the School of Business (total of five years); or even start classes in their junior year in the master of arts in teaching program (total of five years).

First-year students in the School of Health Sciences who are undecided about professional career goals also can use the health and science studies major as preparation for graduate study in a field not offered by Quinnipiac such as nutrition, optometry, chiropractic medicine or dentistry.

Consistent with other four-year specific programs in the basic and health sciences, the School of Health Sciences provides a general curriculum for the undeclared students. During this time, students pursue course work in biology, chemistry, mathematics and the liberal arts while exploring potential areas of concentration. Students also are encouraged to enroll in a career exploration course to help them identify their interests. Given the broad applicability of course work in the first two years of study, it is often quite possible for a student to meet specific program requirements that will enable them to matriculate into a different major in the School of Health Sciences by the end of their sophomore year.

## Health and Science Studies Curriculum

A total of 122 credits is required for completion of the BS in health and science studies.
Course Title ..... Credits
Fall Semester, First Year
BIO 101 General Biology I (UC) ..... 3
BIO 101L General Biology I Lab (UC) ..... 1
CHE 110 General Chemistry I ..... 3
or CHE 101 Fundamentals of Chemistry I*
CHE 110L General Chemistry I Lab ..... 1
or CHE 101L Fundamentals of Chemistry Lab I*
EN 101 Freshman Composition (UC) ..... 3
MA 275 Quantitative Literacy (UC)** ..... 3
or alternate UC requirement (Social Sciences, Fine Arts, Humanities)
QU 101 The Individual in the Community ..... 3 ..... 3
Total 17
Spring Semester, First Year
BIO 102 General Biology II (UC) ..... 3
BIO 102L General Biology II Lab (UC) ..... 1
CHE 111 General Chemistry I ..... 3
or CHE 102 Fundamentals of Chemistry I*CHE 111L General Chemistry I Lab1
or CHE 102L Fundamentals of Chemistry Lab I*EN 102 Freshman Composition (UC)3
UC Social Sciences, Fine Arts or Humanities course ..... 3
UC Social Sciences, Fine Arts or Humanities course ..... 3
MA 275 Quantitative Literacy**

Total 17
*Chemistry courses depend on individual major and/or career plan ${ }^{* *}$ Quantitative Literacy (math) depends on intended major, career plan and placement

## Subsequent Course and GPA Requirements

Following the first year of study, health and science studies students meet with their academic advisers and develop a customized plan of study that incorporates their academic and career goals. To remain in good standing within the program, students must maintain an overall GPA of 2.0 and earn 122 credits for degree completion. Course selections must fulfill the following:

## Course Categories <br> Credits

Basic science core (biology, chemistry \& physics) 20
Health/science electives
Open electives 33
University Curriculum Requirements 39
Total 122

## Premedical Studies Program

Students in majoring in health and science studies may fully participate in the premedical studies program. The curriculum in this degree program can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.

## Bachelor of Science in Microbiology/Molecular Biology

The program in microbiology/molecular biology provides the student with fundamental knowledge of the theories, principles and research techniques in this exciting and rapidly evolving field. The mission of the program is to help the student develop the ability to ask significant scientific questions and then utilize critical thinking skills and modern research laboratory technology to solve these problems successfully.

Students learn about molecular biology with hands-on student-directed laboratory projects where thinking, planning and problem-solving skills are developed. Independent research projects under the guidance of faculty allow development of these skills with "real-world" experiences.

Student skills are evaluated continuously with written and oral presentations, encouraging the refinement of communication skills critical to a successful career. Products of student research activity are presented in seminars and at regional or national scientific meetings.

## General Information

Rapid and expanding advances in the field of microbiology/molecular biology have created a need for employees with expertise in a variety of areas. Our graduates are prepared for exciting careers in the expanding medical, clinical, pharmaceutical, biotechnological, molecular and health industries. This program also prepares the student for advanced study in specialized graduate science, health and medical programs.

The program offers students a range of classroom, laboratory and independent research experiences. All courses consist of lecture and hands-on laboratories where students perform the most current research techniques. In addition to courses in the sciences, the University Curriculum course offerings prepare students with a broad-based conceptual understanding of science and its role in society.

Included in this program is a two-semester required undergraduate seminar/research experience performed with faculty in research laboratories. This experience allows the student to develop the expertise and experience to be successful in beginning a career or in graduate study. All of our students give formal presentations of their independent research projects. Many have presented the results of research experiences at professional scientific meetings. Successful third- and fourth-year students may be able to obtain internships or part-time work experiences during the school year and/or summer in government labs and major pharmaceutical or biotechnology companies located in the region.

## BS in Microbiology Curriculum

| Course | Title | Credits |
| :--- | ---: | ---: |
| Fall Semester, First Year |  |  |
| BIO 101 | General Biology I (UC) | 4 |

CHE 110 General Chemistry I 4
EN 101 Freshman Composition I (UC) 3
MA 140 Quantitative Literacy (UC) ${ }^{1}$ 3
QU 101 The Individual in the Community 3
Total 17
Spring Semester, First Year
BIO 102 General Biology II (UC) 4
CHE 111 General Chemistry II 4
EN 102 Freshman Composition II (UC) 3
UC Humanities elective 3
UC Social sciences elective 3
Total 17
Fall Semester, Second Year
BMS 370 General Microbiology 4

| CHE 210 | Organic Chemistry I | 4 |
| :---: | :---: | :---: |
| PHY 110 | General Physics I | 4 |
| UC | Fine Arts elective | 3 |
|  |  | Total 15 |
| Spring Semester, Second Year |  |  |
| CHE 211 | Organic Chemistry II | 4 |
| PHY 111 | General Physics II | 4 |
| BMS 372 | Pathogenic Microbiology | 4 |
| QU 201 | Seminar on National Community | 3 |
|  |  | Total 15 |
| Fall Semester, Third Year |  |  |
| CHE 315 | Biochemistry | 4 |
| UC | UC elective ${ }^{2}$ | 3 |
|  | Microbiology elective | 3-4 |
|  | Science elective | 4 |
|  |  | Total 14-15 |
| Spring Semester, Third Year |  |  |
| BMS 375 | Immunology | 4 |
|  | Microbiology elective ${ }^{3}$ | 4 |
|  | Science elective | 4 |
| QU 301 | Seminar on Global Community | 3 |
|  |  | Total 15 |
| Fall Semester, Fourth Year |  |  |
| BMS 478 | Microbiology Seminar | 1 |
|  | Microbiology elective | 3-4 |
|  | Science elective | 4 |
|  | Chemistry elective ${ }^{4}$ | 4 |
| UC | UC Elective | 3 |
|  |  | Total 15-16 |
| Spring Semester, Fourth Year |  |  |
| BMS 479 | Microbiology research | 2 |
|  | Microbiology electives ${ }^{3}$ | 8 |
| UC | Social science elective | 3 |
|  | Humanities elective | 3 |

Total 16

1. Minimum mathematics requirement: MA 140 (Pre-

Calculus). For those interested in graduate or professional schools, MA 141-142 (Calculus) is recommended.
2. MA 275 (Biostatistics) strongly recommended.
3. BMS 471 (Molecular Genetics) and BMS 470 (Virology) strongly recommended.
4. CHE 215 (Analytical Chemistry) strongly recommended.

## Recommended Science electives

BIO 211-212 Anatomy \& Physiology I \& II 4
BIO 251 General Ecology 4
BIO 282 Human Genetics 4
BIO 317 Developmental Biology 4
BMS 332 Histology 4
Additional electives may be selected with the approval of the department chair.

## Microbiology electives

BIO 326 Animal Parasitology ..... 4
BIO 346 Cell Physiology ..... 4
BMS 278 Research \& Technology ..... 3
BMS 373 Mycology ..... 4
BMS 470 Virology ..... 4
BMS 471 Molecular Genetics ..... 4
BMS 472 Biotechnology ..... 4
BMS 473 Infections of Leisure ..... 3
BMS 474 Power of Plagues ..... 3
BMS 476 Environmental Microbiology ..... 4
BMS 482 Independent Study in Biomedical Sciences ..... 4
Microbiology and Molecular Biology MinorThe Department of Biomedical Sciences offers aminor in microbiology and molecular biology,which provides students with a fundamentalknowledge of the theories, principles and researchtechniques in this exciting and rapidly evolvingfield. The program is committed to helpingstudents develop the ability to ask significantscientific questions and then utilize criticalthinking skills and modern research laboratorytechnology to solve these problems successfully.

Students are required to complete BMS 370 (Microbiology) and at least four of the courses indicated below with a grade of C or better.

## Required Courses

A total of 20 credits is required for completion of the microbiology and molecular biology minor.
Course Title ..... Credits
BMS 370 General Microbiology* ..... 4
Plus, take four of the following:
BIO 326 Animal Parasitology ..... 4
BIO 328 Clinical Human Animal Parasitology ..... 4
BIO 346 Cell Physiology ..... 4
BIO 471 Molecular Genetics ..... 4
BMS 372 Pathogenic Microbiology ..... 4
BMS 373 Mycology ..... 4
BMS 375 General Immunology ..... 4
BMS 378 Vaccines ..... 4
BMS 470 Virology ..... 4
BMS 472 Biotechnology ..... 4
BMS 473 Infections of Leisure ..... 3
BMS 474 Power of Plagues ..... 3
BMS 475 Current Topics ..... 4
BMS 476 Environmental Microbiology ..... 4
BMS 482 Independent Study in Microbiology ..... 3-4
Graduate courses for the Microbiology and Molecular Biology Minor (permission required) BMS 570 Virology
(cannot be combined with BMS 470)
BMS 526 Epidemiology
BMS 569 Antimicrobial Therapy 3
BMS 573 Mycology 4
BMS 575 Food Microbiology
BMS 595 Transplantation Immunology
BMS 596 Immunology of Infectious Diseases

## Premedical Studies Program

Students majoring in molecular biology/microbiology may fully participate in the premedical studies program. The curriculum in this degree program can fulfill the science prerequisites for most professional schools. Students should refer to page 45 of this catalog for more information about the premedical studies program and contact the Health Professions Advisory Committee for further academic advising.

## Entry-Level Master of Health Science-Physician Assistant Preprofessional Component

The mission of the Quinnipiac University entrylevel master's physician assistant program is to begin the education and preparation of master'slevel physician assistants who practice medicine with physicians and other members of the health care team. The program has been designed to benefit from faculty expertise in both the graduate and undergraduate divisions as well as practitioners from a variety of clinical specialties. These collaborative strategies are intended to prepare graduates to enter the physician assistant profession and ultimately become outstanding health care providers.

The program offers the qualified pre-physician assistant student the opportunity to pursue a master's degree in the physician assistant program at Quinnipiac. The program is divided into a fouryear preprofessional component and a 27 -month professional component. To progress to the professional phase, all ELMPA courses must be completed within four years. Following successful completion of the preprofessional component, students receive a $B S$ in health and science studies.

The preprofessional component provides students with a well-rounded education and a strong focus in biological and health science studies. This very structured and organized undergraduate pro-
gram not only prepares students for the rigors of the professional component of the program, but also introduces students to the role and responsibilities of physician assistants. The program addresses the need for medical experience by providing students with emergency medical technician (EMT) training as well as extensive time shadowing and mentoring with practicing physician assistants. EMT ride time as well as shadowing experiences take place at off-campus sites generally within 50 miles of the Mount Carmel Campus. Students are responsible for transportation to and from all off-campus sites. In addition, students must meet specific program health requirements for participation in the shadowing experiences.

Initial evaluation of the pre-physician assistant student by the Review and Evaluation Committee takes place at the end of the spring semester of the second year. To continue in the program, students must have a minimum cumulative GPA of 3.0 and a minimum cumulative science GPA of 3.0 . Following the initial evaluation, students are evaluated after completion of each semester. Failure to maintain a minimum cumulative GPA of 3.0 and a minimum cumulative science GPA of 3.0 results in dismissal from the program. In addition, a minimum GPA (both cumulative and science) is required for participation in clinical affiliations.

By the beginning of the fourth year, students are required to have accumulated at least 500 hours of documented direct patient contact through summer paid and/or volunteer experiences (e.g., certified nurse's aide, phlebotomy technician, emergency room technician). While patient contact hours must be pre-approved by program faculty, students are responsible for making their own arrangements to obtain these clinical hours.

## Admission to the Program

Candidates applying for admission must have: a minimum of three years of high school mathematics including geometry, algebra and pre-calculus; one year of biology; one year of chemistry and one year of physics. In addition, advanced electives in the biological sciences are recommended. Related health care experience is highly desirable.

Prospective candidates must also satisfy the admission requirements of Quinnipiac. Transfer students are not admitted to the entry-level master's physician assistant program. Admission into the preprofessional component of the program
does not guarantee admission into the professional component of the program.

Please see the Graduate and Online Studies section (p. 203) for information on the professional component of the entry-level master's physician assistant program. Applicants to the program must be able to meet the technical standards set forth by the graduate physician assistant program, which can be found on the Quinnipiac PA program website.

## Entry-Level Master's Physician Assistant Curriculum

Course Title Credits

Fall Semester, First Year
BIO 101 General Biology I (UC) 4
EN 101 Elements of Composition I (UC) 3
MA 141 Calculus of a Single Variable (UC) 3
CHE 110 General Chemistry I 4
QU 101 The Individual in the Community 3
Total 17
Spring Semester, First Year
BIO 102 General Biology II (UC) 4
EN 102 Elements of Composition I (UC)
UC Fine Arts, Humanities, Social Science 3
CHE 111 General Chemistry II 4
PY 104 Orientation to PA Seminar I
Total 15
Summer I, Clinical Hours
Fall Semester, Second Year
BIO 211 Anatomy \& Physiology I 4
CHE 210 Organic Chemistry I
PHY 110 General Physics
PY 388 Clinical Training I (EMT)*
Spring Semester, Second Year
BIO 212 Anatomy \& Physiology II 4
CHE 211 Organic Chemistry II 4
PY 397 Pre-Health Clinical Affiliation 3
PY 389 Clinical Training II (EMT)*
QU 201 Seminar on National Community
Summer II, Clinical Hours
Fall Semester, Third Year
BIO/BMS Core Science elective 3-4
BMS 318 Pathophysiology
BMS 370 General Microbiology 4
UC Fine Arts, Humanities, Social Science 3
UC Fine Arts, Humanities, Social Science 3

## Spring Semester, Third Year

BMS 203 Introduction to Medical Terminology 2
BMS 304
or CHE 315 Biological Chemistry 3-4
BIO/BMS Core Science elective 3-4
PY 400 Pre-Physician Assistant Clerkship 3
QU 301 Seminar on Global Community 3
Total 14-16

## Summer III, Clinical Hours

Fall Semester, Fourth Year
BIO/BMS Science elective 3-4
BIO/BMS Core Science elective 3-4
PY 401 Introduction to Clinical Problem Solving 3
BMS 200 UC Elective (Biology of Aging) 3
UC Fine Arts, Humanities, Social Science 3
Total 15-17
Spring Semester, Fourth Year
PY 204 Orientation to PA Seminar II 1
BMS 332 Histology 4
BIO/BMS Science elective 3-4
UC UC Elective 3
UC Fine Arts, Humanities, Social Science 3
Total 14-15
Total number of credits required for completion
of the preprofessional component
*If student has current EMT licensure on admission to the program, BMS 482 is taken instead of PY 388, and an additional science elective is taken instead of PY 389.

Students who have earned advanced placement credit or other college credit in an introductory-level science course are encouraged to still take BIO 101/102 and CHE 110/111 at Quinnipiac. Students opting out of those courses are required to take the equivalent number of hours at a higher level in the same area of course work. Students with AP credits in non-science courses may elect to take only 14 credits in the fall semester of the first year.

## Acceptable Core Science Electives

(students must take at least three of the following):
BIO 350 Cardiovascular Physiology 3
BMS 310 Neuroanatomy 3
BMS 320 Pharmacology 3
BMS 325 Toxicology 3
BMS 330 Endocrine Physiology 3
BMS 372 Pathogenic Microbiology 3
BMS 375
or HSC 375 Immunology 3-4

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## Additional Science Electives (students take two courses from core science electives or from this list):

BIO 282
or BIO 471 Genetics 3-4
BIO 298 Research Methods in Biology 2
BIO 328 Human Clinical Parasitology 4
BIO 329 Neurobiology 3
BIO 346 Cell Physiology 4
BMS 378 Vaccines \& Vaccine Preventable Diseases 3
BMS 473 Infections of Leisure
or BMS 474 Power of Plagues 3
BMS 482 Independent Study 2-4
BMS 595 Transplantation Immunology 3
Acceptable UC/Social Sciences
PS 101 Introduction to Psychology 3
PS 232 The Concept of Personality \& Its Development
PS 261 Social Psychology
PS 262 Psychology of Women 3
PS 272 Abnormal Psychology 3
SO 101 Introduction to Sociology 3
SO 280 Illness \& Disability 3
Acceptable UC elective Outside Major
BMS 200 Biology of Aging 3


## Department of Diagnostic Imaging

Bachelor of Science in Diagnostic Imaging Bachelor of Science in Diagnostic Imaging (Continuing Education)

## Bachelor of Science in Diagnostic Imaging

The diagnostic imaging program supports the mission statements of both Quinnipiac University and the School of Health Sciences and their commitment to excellence in education. The mission of the diagnostic imaging program at Quinnipiac University is to develop students' technical and interpersonal communication skills through a logical and organized sequence of didactic, laboratory and clinical experiences. The program offers multiple clinical assignments to provide maximum exposure to diversified radiographic procedures and imaging protocols. In addition, the program prepares multi-skilled graduates competent in the art and science of radiography. Graduates of the program will meet the needs of the community for highly qualified professionals, and the program prepares students for career entry and advanced study.

## General Information

Radiographers are essential members of the health care team. Their knowledge of radiation protection, physics and biology, as well as technical procedures, allows them to deliver the safest and highest quality patient care through the use of multiple imaging modalities. In the evolving world of medicine, high technology imaging has become multifaceted, both in modalities and operationally.

This program offers both knowledge and basic clinical cross-training in diverse aspects of patient care for the student who is motivated to become a member of this specialty. Courses also are offered to introduce the student to the subspecialties of computed tomography (CT), magnetic resonance imaging (MR), mammography (M), bone densitometry (BD), forensic imaging and sonography.

To prepare students for careers in radiography and to introduce them to the subspecialty areas within diagnostic imaging, Quinnipiac offers a BS degree in diagnostic imaging. Graduates are ready
for entry-level employment as radiographers with expanded skills in advanced imaging and quality assurance.

The first year of the bachelor's degree program consists of University Curriculum studies. The component of the program accredited by the Joint Review Committee on Education in Radiologic Technology begins in the second year of study. During the second and third years, the students concentrate on didactic radiography classes and laboratory sessions on campus and clinical education at multiple clinical education centers. The curriculum is structured so students can apply the knowledge and skills developed in the classroom and laboratory to the care of patients in the clinical setting. Didactic and clinical courses are taken concurrently to provide the opportunity for immediate application and reinforcement.

Upon satisfactory completion of the junior year, students are eligible to apply for the American Registry of Radiologic Technologists (ARRT) certification examination. Upon satisfactory achievement on this national examination, students are eligible for radiologic technology licensure in Connecticut and other states.

The fourth year of the program provides students with an opportunity to select one of the following advanced imaging concentrations, computed tomography (CT), magnetic resonance imaging (MR), mammography (M) or sonography (ARDMS/ARRT). At the end of the fourth year, students may be eligible to apply for ARRT advanced imaging certification. Students intending to continue their education beyond the bachelor's degree level may select the science concentration which allows for completion of requirements for most professional schools.

## Policies

In addition to the general policies of Quinnipiac University, such as due process and academic honesty, the following apply to students enrolled in the diagnostic imaging program:

## Progression in the Program

After completion of the freshman year, a cumulative GPA of 2.5 is required to progress into the major. Students must maintain a cumulative GPA of 2.5 to remain in academic good standing in the program. If a student does not maintain a 2.5 GPA at any point during the professional
component of the program, the student may be dismissed from the program.

Upon entering the professional component of the program, all professional courses (RS designation) are accepted only if the student earns a grade of $\mathrm{C}+$ or higher. A student earning a grade of $\mathrm{C}+$ or less must appear before the Diagnostic Imaging Department's Academic Standing and Progress Committee. If the student does not meet the terms of the decision set forth by the DI Academic Standing and Progress Committee, the student may be subject to dismissal from the program.

## Transportation

Multiple clinical education centers are used throughout the professional component of the program. Students are responsible for their own transportation to and from these sites.

## Summer Study

All students are required to perform one clinical assignment during the summer semester, second year (RS 252). This clinical practicum is performed during summer sessions I and II and may be performed only in a clinical affiliate currently approved by the Joint Review Committee on Education in Radiologic Technology (JRCERT) for the program.

| BS in Diagnostic Imaging Curriculum |  |  |
| :--- | :--- | ---: |
| Course |  |  |
| Title |  |  |
| Fall Semester, First Year |  |  |
| BIO 101 | Science (UC) |  |
| PHY 101 | Elements of Physics | 4 |
| or CHE 110 | General Chemistry |  |
| EN 101 | UC | 4 |
| MA 110 | Quantitative Literacy (UC) | 3 |
| QU 101 | The Individual in the Community | 3 |
|  |  | 3 |

Total 17
Spring Semester, First Year
BIO 102 Science (UC) 4
EN 102 Freshman Composition (UC) 3
RS 101 Introduction to Diagnostic Imaging 3
UC Social Sciences 3
UC Humanities 3
Total 16
Fall Semester, Second Year
RS 210 Radiographic Procedures I 2
RS 211 Laboratory Practicum I 1
RS 240 Image Production \& Evaluation I* 3
RS 250 Clinical Education I 2

## RS 298

Methods of Patient Care*
BIO 211 Anatomy \& Physiology I

## Spring Semester, Second Year

RS 220 Radiographic Procedures II
RS 221 Laboratory Practicum II
RS 245 Image Production \& Evaluation II*
RS 251 Clinical Education II
RS 318 Pathology in Imaging
BIO 212 Anatomy \& Physiology II
Summer Semester, Second Year
RS 252 Clinical Education III
RS 497 Directed Studies in Diagnostic Imaging 1
Total 3
Fall Semester, Third Year
RS 230 Radiographic Procedures III 2
RS 231 Laboratory Practicum III
RS 330 Diagnostic Assessment
RS 350 Clinical Education IV
RS 322 Sectional Anatomy
or RS 300 Introduction to Sonography** 3
RS 260 Radiographic Physics \& Instrumentation 3
QU 201 Seminar on National Community
Total 17
Spring Semester, Third Year
RS 215 Radiation Protection \& Biology 3
RS 290 Radiographic Procedures IV* 3
RS 351 Clinical Education V 2
RS 498 Radiography Seminar 1
BMS 200 UC elective (UC) 3
UC UC elective (UC) 3
Total 15
Fall Semester, Fourth Year
QU 301 Seminar on Global Community 3
UC Humanities 3
RS Concentration Courses*** 6-9
Total 12-15
Spring Semester, Fourth Year
UC Social Science
UC Fine Arts
RS Concentration Courses***

## Total Credits 125-128

*These courses have a laboratory component
**Sonography track only
***Students complete courses in the chosen area of concentration.

Total 15

Total 15

Qu 201 Semar on Nation

RS 421 Non-Traditional Applications of Diagnostic 1 Imaging I
RS 422 Non-Traditional Applications of Diagnostic 1 Imaging II
RS 425 Cadaver Imaging 1
RS 430 Clinical Practicum: Mammography I 2
RS 431 Clinical Practicum: Mammography II 2
RS 438 Clinical Practicum: Computed 2
Tomography (CT) I
RS 439 Clinical Practicum: Computed 2
Tomography (CT) II
RS 440 Artifact Imaging Practicum 1
RS $450 \quad$ Forensic Imaging I 1
RS 451 Forensic Imaging Lab 1
RS 452 Forensic Imaging II 1
RS 454 Forensic Imaging Seminar 3
RS 460 Pathology for CT and MRI Technologists 3
RS 470 Ultrasound of the Abdomen 3
RS 471 Gynecological \& Peripheral Sonography 3
RS 472 Obstetrics 3
RS 473 Breast Sonography 3
RS 473L Breast Sonography Lab 1
RS 480 Clinical Practicum: Medical Sonography I 2

16 credits of biology, chemistry or physics course work for the students considering medical, dental, podiatric, chiropractic or veterinary medicine.

1. Initial placement in the English and mathematics courses is determined by placement examination and an evaluation of high school units presented. The minimum mathematics requirement is MA 110 or its equivalent.
2. BIO 101-102 are required courses for the diagnostic imaging program and may be used to meet the University core sciences requirement.
3. All diagnostic imaging course requirements must be completed in the appropriate semester as indicated above.
4. The diagnostic imaging program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr., Suite 900, Chicago, Illinois 60606-2901.


## Department of Occupational Therapy

## Entry-Level Master's Degree in Occupational Therapy

The Department of Occupational Therapy embodies three fundamental values: excellence in education, a sensitivity to students, and a spirit of community.

The foundation on which the occupational therapy professional education is built consists of University Curriculum requirements. The occupational therapy faculty's mission is to create an atmosphere that promotes student selfactualization, intellectual growth, service to the community, clinical scholarship and research.

The occupational therapy program cultivates student growth within a developmental-humanistic model. This process acknowledges that the student has physical, psychosocial and cultural needs and abilities. These abilities are developed through professional, arts and sciences experiences that provide a general education, a professional knowledge base, and entry-level skills and judgment.

In addition, faculty encourage practical and clinical reasoning and problem solving, based on the principles and current philosophy, frame of reference and theory of the occupational therapy profession.

The three levels of the curriculum designfoundation, application and integration-provide a developmental framework for active learning. This design enables students to develop as entry-level therapists who can advocate for clients within the occupational therapy process using evidence to inform practice through practical and critical thinking. Graduates have the skills to learn for a lifetime with a strong professional identity in occupational therapy.

Learning outcomes for graduates of the entrylevel BSHS-MOT degree include:

1. meet the essential learning proficiencies of the University,
2. understand the foundational concepts of occupation across the lifespan and across all practice settings,
3. become an effective change agent through the implementation of the evaluation and intervention processes that will allow people to
live their lives to the fullest within their individual contexts,
4. be able to link evidence and scholarship for best practices, and
5. base a professional identity and high practice values based upon ethical, critical thinking.
The faculty facilitates professional development by promoting a continuum of lifelong learning founded on classroom education, fieldwork experiences, laboratory experiential learning, contribution and service to the community. This program prepares graduates for entry-level practice and collaboration within a diverse health care community.

## General Information

Occupational therapy is a health care profession that includes the use of purposeful activities, or occupations, to assist persons in achieving their highest level of functioning or self-actualization. The definition which was adopted and approved by the Representative Assembly of the American Occupational Therapy Association (1986) states that: "Occupational therapy is the therapeutic use of self-care, work and play activities to increase independent function, enhance development and prevent disability. It may include the adaptation of tasks or the environment to achieve maximum independence and to enhance quality of life."

Occupational therapy is both an art and a science. An occupational therapist is able to administer and analyze a variety of evaluations that are utilized in the therapeutic relationship to establish intervention goals with the client involved in the occupational therapy process. The therapeutic interventions meet the needs of people of all ages who may have limitations because of physical, developmental, psychosocial, or challenges of the normal developmental process. The therapeutic interventions are adapted to meet individual needs and are in collaboration with the environment in which the person lives, works and plays. Occupational therapists also are committed to promoting health, preventing injury or disability, and improving one's abilities.

Students are engaged in a variety of learning experiences to prepare them for the diverse practice of occupational therapy. The curriculum objectives include an emphasis on the arts and sciences with knowledge, skills and attitudes developed through an integration of classroom learning, experiential learning and laboratory
fieldwork level I and II experiences. The content is delivered through collaborative and cooperative teaching strategies involving academic and clinical faculty, to promote the integration of theory into practice for individuals with diverse needs in varied practice environments, across the ages, with individual cultural, economic and social needs. Inherent within the profession and the program is the value and regard for all human beings as unique individuals who have the capacity to choose and seek their own meaning and purpose in life, reinforcing the developmental-humanistic curriculum design. The occupational therapy student learns to become an effective change agent in this process of helping others to achieve their own satisfactory life occupations.

The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. ACOTE's phone number c/o AOTA is 301-652-AOTA. The ACOTE on-site evaluation awarded the program full accreditation status in August 2009. The next evaluation will be 2018/2019. Graduates of the program are eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an occupational therapist, registered (OTR). Most states require licensure to practice; however, state license eligibility is usually based on the results of the NBCOT certification examination. A summary of the pass rate is available upon request from the chair and is on the University website.

## Admission to the Program

The high school student applying for admission to the occupational therapy program should present four years of mathematics and four years of science. The general Quinnipiac University requirements for admissions must be met. All students applying for admission are strongly encouraged to have at least 30 hours of observation in occupational therapy. The department is prepared to provide reasonable accommodations for students who have special needs or challenges.

## Transfer Students from Other Colleges and Universities

Transfer students from other colleges and universities are accepted into the occupational therapy program dependent upon successful completion of the University Curriculum and sciences prerequisite courses with a GPA of 3.0. In addition the 30 hours of observation are strongly encouraged.

Once accepted into the program, students need to complete OT 111, 112, 210, 212 before they enter the junior year with a grade of B- or better in each course. These courses are offered in the summer, in January and during the semester. BIO 211 and BIO 212 must have a minimum grade of C -.

## Transfer Students from within Quinnipiac

Students currently attending Quinnipiac in other programs are accepted into the occupational therapy program. Students may apply through the department at the end of the fall or spring semester of their sophomore year. All prerequisite courses as listed in the catalog must be completed with a GPA of 2.75. In addition, 30 hours of observation in occupational therapy is strongly encouraged. Once accepted into the program, students need to complete OT 111, 112, 210, 212 before they enter the junior year with a grade of Bor better in each course.

## Professional Component

Entry into the junior year (professional program) depends upon a B- or better in OT 111, 112, 210, 212 , and satisfactory completion of all lower division requirements with a minimum 2.75 quality point average. A GPA of 3.0 each semester must be maintained in the occupational therapy courses during the junior, senior and graduate years. All professional courses in the junior, senior and graduate years are accepted only if the student earns a grade of "C+" or above. All fieldwork level I courses (as identified in the course descriptions and student manual) must be completed with a minimal grade of $\mathrm{B}+$. A grade lower than a B+ in any fieldwork level I course or a grade of C or lower and a semester GPA of less than 3.0 may result in dismissal from the program. All three fieldwork level II experiences must be completed with a " P " or pass to graduate.

If a student is dismissed from the program because of low grades, a semester GPA below a
3.0, or an "F" or "W" in Fieldwork Level II Experience (OT 500, OT 580, and/or OT 581), the student may follow the appeal process in the student manual. If the OT Department Progression and Retention Committee overturns the dismissal and places the student on probation, the terms of the probation are final and no subsequent future appeals will be allowed. If a student does not meet a probation contract, then dismissal from the program will occur without the right of appeal.

All students are responsible for transportation to all fieldwork experiences and maintaining viable health insurance, malpractice insurance, CPR certification, and immunizations according to their fieldwork placements. Membership in the American Occupational Therapy Association is required yearly.

Initial placement in the English and mathematics courses is determined by examination and an evaluation of high school units presented. The minimum mathematics requirement is MA 275 or its equivalent. BIO 101-102 are required for graduation and may be used to meet the University Curriculum sciences requirement. The occupational therapy course requirements must be fulfilled in the appropriate semester as indicated. The final three years of the program are a full-time, day program. Deviations from the sequence, waivers from occupational therapy courses and transfer courses from other occupational therapy programs must be approved by the Occupational Therapy Progression Committee and the department chairperson.

A felony conviction may affect a graduate's ability to sit for the certification exam or attain state licensure. Criminal background checks are required in the summer prior to their junior year and are updated, if required, before each Fieldwork Level II experience.
Entry-Level Master's Degree inOccupational Therapy Curriculum
Course Title Credits
Fall Semester, First Year
BIO 101 Science (UC) ..... 4
EN 101 Freshman Composition (UC) ..... 3
MA 275 Quantitative Literacy (UC) ..... 3
UC Social Sciences ..... 3
QU 101 The Individual in the Community ..... 3
OT 111 Fundamentals of Occupational Therapy ..... 1

| Spring Semester, First Year |  |
| :---: | :---: |
| BIO 102 | Science (UC) |
| EN 102 | Freshman Composition (UC) |
| UC | Humanities |
| UC | UC elective |
| UC | Social Sciences |
| OT 112 | Occupation Based Activity Analysis |
|  | Total 1 |
| Fall Semester, Second Year |  |
| BIO 211 | Anatomy \& Physiology I |
| PHY 101 | Physics 101 |
| UC | UC elective |
| UC | Humanities |
| OT 210 | OT Skills in the Therapeutic Use of Self |
|  | Total 1 |
| Spring Semester, Second Year |  |
| BIO 212 | Anatomy \& Physiology II |
| UC | Fine Arts |
|  | Elective |
|  | Elective |
| OT 212 SL | Group Leadership (Service Learning) |
| QU 201 | Seminar on National Community |
|  | Total 1 |
| Fall Semester, Third Year |  |
| OT 315 | Anatomy \& Lab |
| OT 325 |  |
|  | Occupation |
| OT 335 | Functional Neuroanatomy |
| OT 345 | Theory of Occupation \& Fieldwork I: Wellness |
| OT 355 | Occupational Therapy Framework (SL) |
| OT 355L | Community Service Learning |

Total 16


## Spring Semester, Third Year

OT 316 Kinesiology \& Lab 4
OT $326 \quad \begin{aligned} & \text { Principles of Human Development- } \\ & \text { The Older Adult }\end{aligned}$
OT 336 Functional Neuro-behaviors 3
OT 356 Documenting OT Practice \& FW1 3
OT 357 Professional Seminar in Occupational Therapy 1
OT 364 Problem Based Learning: Risk Factors Impacting Human Occupation 1
QU 301 Seminar on Global Community 3
Total 18

## Fall Semester, Fourth Year

OT 415 Health Conditions I 6
OT 420 Evaluative Process \& Lab with FWI 8
OT 445 Applied Theory in OT 3
OT 466 Problem Based Learning: Health Conditions \& Occupation I 1

Total 18

## Spring Semester, Fourth Year

OT 416 Health Conditions II 6
OT 421 OT Intervention Strategies \& Lab with FW I 8
OT 446 Group Process \& Lab 4
OT 467 Problem Based Learning Groups Health Conditions \& Occupation II

1
Total 19
Total credits 139
Upon successful completion of the fourth year, the BS in health and science studies is awarded. Award of this degree leads to matriculation into the graduate level of the program. Completion of all of the requirements for the BS degree are required to move to 500-level fieldwork and courses.

## Summer Between Fourth Year \& Graduate Year <br> OT 500 Fieldwork Level II <br> 6

Twelve weeks of full-time supervised experience. All FWII policies must be followed according to the OT program manual available from the chairperson.
Fall Semester, Graduate Year
OT 510 Impact of Laws \& Regulations on OT Practice 2
OT 511 Administration \& Management in OT 4
OT 535 Integrative Interventions: Sensory Integration \& Neurorehabilitation 6
OT 550 OT Research 4
OT 560 Contemporary Modalities 2
Total 18

| Spring Semester, Graduate Year |  |  |  |
| :--- | :--- | :---: | :---: |
| OT 536 | Intervention: Ergonomics \& Assistive |  |  |
|  | Technology, FW, Lab |  |  |

OT 555 Pharmacology \& Environmental Toxins Affecting Human Performance

3


OT 556
Professional Development
OT 565
Integrative Case Studies
Capstone Project
OT 570

Summer \& Fall Following Graduate Year
OT 580 Fieldwork Level II
OT 581 Fieldwork Level II
All fieldwork must be completed within 12 months from completion of course work.

All course work and fieldwork must be completed with grades as stated in the occupational therapy program manual. Retention and dismissal criteria are also written in the occupational therapy program manual which is available from the chairperson. Any variations in the program of study leading to the MOT must be approved by the Occupational Therapy Retention and Progression committee. The occupational therapy course work must be completed in the sequence provided on a full-time basis. The only exceptions, which require approval from the Occupational Therapy Retention and Progression Committee, may be transfer students. The curriculum, as designated occupational therapy courses, is subject to modification as deemed necessary to maintain a high quality educational experience.

## Department of Physical Therapy

Bachelor of Science in Athletic Training and Doctor of Physical Therapy
Doctor of Physical Therapy
(three- or four-year preprofessional option and three-year professional component)

## Bachelor of Science in Athletic Training and Doctor of Physical Therapy (7 years)

Select candidates from high school may apply to the combined AT-DPT degree. Upon completion of four years of study, students will receive a bachelor of science in athletic training/sports medicine and will be guaranteed admission into the three-year graduate DPT program. All preprofessional requirements of the professional graduate DPT program are required for those students selected for admission into the combined AT-DPT degree.

Students enrolled in the athletic training program, or other majors that provide prerequisite requirements for the graduate DPT program may apply for entry into the three-year doctor of physical therapy graduate program using the Physical Therapy Centralized Application Service (PTCAS) during the senior year of their BS program. Admission is competitive and is based on performance and space availability. Freshmen enrolled in the dual major AT-DPT program with the guarantee of admission into the graduate DPT program based upon successful completion of program requirements must complete the AT-BS program prior to enrollment in the graduate DPT program. If students enrolled in the AT-DPT dual program do not complete the AT-BS, they must re-apply to the DPT program via the centralized application process.

See physical therapy for required standards to successfully complete the preprofessional component of that program. Additionally, all athletic training classes must be completed with a B- or better and an overall GPA of 3.2.

## Entry-Level Doctor of Physical Therapy

## Program Philosophy

Excellence in physical therapy education is developed in cooperation with the larger University and health science community that is student centered and focused on academic distinction. Our program seeks to enhance the professional development of every student and faculty member through a variety of academic, scholarly and service opportunities. This philosophy is well represented by the program's physical resources and integrated curriculum that links foundational and medical sciences, clinical practice and professionalism.

## Program Mission Statement

An education in physical therapy at Quinnipiac University embodies both the University's commitment to its three core values: high-quality academic programs, a student-oriented environment and a strong sense of community, and the American Physical Therapy Association's core values: accountability, altruism, compassion/caring, excellence, integrity, professional duty and social responsibility. The program in physical therapy prepares students to become competent and compassionate entry-level physical therapists, who are able to practice in a variety of settings serving diverse populations across the lifespan.

To achieve its mission, the program in physical therapy

- builds on a strong foundation of liberal arts and sciences
- cultivates critical and reflective thinking, clinical decision-making, and lifelong learning by utilizing an evidenced-based learning model, authentic assessments and a variety of learning experiences that include interactive technology. This learning model features small lab sizes, hands-on activities, visits to area clinics and opportunities to engage in professional development forums and community interdisciplinary collaboration
- provides both in-class and in-clinic opportunities for students to engage in the essential elements of patient/client management
- supports faculty teacher-scholars who are effective teachers and who collectively engage in scholarship, professional development, direct patient care and University and community service


## General Information and Department Goals

The program in physical therapy is divided into a three- or a four-year preprofessional component leading to a bachelor of science in health and sciences studies and a three-year professional graduate component leading to the doctor of physical therapy. The preprofessional component provides a broad liberal arts education, as well as the basic science foundation for the professional component.

Based on the stated mission, the Department of Physical Therapy has set forth the following goals for the program:

- a high-quality, entry-level education
- continuing education for the clinical community
- effective staff support
- PT clinical partnerships
- high-quality clinical education opportunities
- opportunities for student service

Student goals include the ability to demonstrate the skills necessary for entry-level clinical practice, to participate in research and/or service learning, demonstrate effective education of patients, families, peers, other health professionals and the community, and to participate in service.

Faculty goals include providing effective teaching, as well as participating in scholarship and in service.

The program in physical therapy is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

At the end of the spring semester of the first year, students are required to select and adhere to course work in either the three- or four-year preprofessional track. If the three-year track is selected, students will not be allowed transfer into the fouryear curriculum at a later date. If a student does choose to transfer into the four-year preprofessional track after having previously selected the three-year option, acceptance into the professional graduate DPT program cannot be guaranteed.

## Essential Function Requirements of the Program

Admission to Quinnipiac University is open to all academically qualified students without regard to age, race, color, religion, sex, handicap or national origin. One of the purposes of the Quinnipiac's physical therapy program is to provide graduates with a broad and basic preparation for professional physical therapy practice. The entry-level doctor of physical therapy offered at Quinnipiac prepares
graduates for roles in state-of-the-art practice. Therefore, a student who is accepted to the program must be able to meet the cognitive, affective and psychomotor requirements of the required curriculum. A graduate is expected by employers, consumers and other health care providers to assume specific roles and responsibilities in a competent and safe manner. Therefore, all knowledge and skills that are part of the physical therapy curriculum must be mastered for successful completion of the program. This includes successful demonstration of these skills in both campus laboratory simulations and in actual clinical settings.

The physical therapy faculty has developed a set of essential functions that provide performance guidelines necessary for mastery of the knowledge and skills necessary to meet physical therapy curriculum objectives. They also are designed to ensure the safety of the student and those who are entrusted to his/her care. Knowing about these essential functions early increases the likelihood of academic success and avoids disappointment later in the program.

For enrollment, continued progression and completion of the physical therapy program, each student must be able to perform pursuant to certain essential functions. The term "essential function" refers to all nonacademic criteria used for admission and participation in a program. They evolve from the practice of physical therapy, and apply to all students. They are not established to discriminate for or against a person with a disability, and ensure that a student can benefit from the program offerings. The skills and abilities that have been identified as necessary to meet physical therapy curricula essential function requirements include, but are not limited to, the following:

## Sensory Ability

To provide quality care, a student is expected to possess functional use of the senses of vision, touch, hearing and smell. All data received by the senses must be integrated, analyzed and synthesized in a consistent and accurate manner. In addition, the student is expected to possess the ability to distinguish color, perceive pain, pressure, temperature, position, equilibrium and movement. The student is expected to be able to observe the patient/client to accurately assess any alteration in functional abilities. Inherent in this observational process is the functional use of the senses and sufficient motor capability to carry out the necessary assessment
activities, such as auscultation, percussion and palpation. The student also should be able to observe a patient accurately and completely at both from a distance and close at hand.

## Communication Ability

The student is expected to be able to communicate verbally and nonverbally in an effective and sensitive manner, at a competency level that allows one to safely carry out the essential functions of physical therapy care. This requires the ability to see, speak, hear, read and write effectively in English, and utilize technology effectively. Students also are expected to be able to communicate effectively with fellow students, faculty and members of the health care team.

## Motor Ability

The student is expected to be able to perform gross and fine motor movements, bilaterally to provide competent care. Examples of care that the student must be able to perform include, but are not limited to, lifting, turning, transferring, transporting and ambulating individuals. The student is expected to have the manual dexterity and/or psychomotor skills necessary to perform and/or to assist with procedures, treatments, administration of medications by all routes, and emergency interventions in a variety of settings with individuals of various ages. The student must be able to administer CPR without assistance. The student is expected to have sufficient motor function to elicit information from individuals by palpation, auscultation, percussion and other diagnostic maneuvers. The student is expected to be able to maintain consciousness and equilibrium, and to have the physical strength and stamina to perform satisfactorily in clinical physical therapy experiences on multiple days per week during the semester. In addition, students are required to participate in four clinical affiliations, which involves at least eight weeks of full time patient care.

## Intellectual-Conceptual Ability

The student is expected to have the ability to develop problem-solving skills, demonstrate the ability to establish care plans, and set priorities. This includes the ability to measure, calculate, analyze and synthesize objective and subjective data and make decisions that reflect consistent and thoughtful deliberation of the appropriate data. Students need to be mindful of the degree of
personal risk, and take proper precautions to prevent untoward incidents associated with commonly occurring hazards in the work environment such as blood borne pathogens, and environmental allergens such as latex or iodine preparations.

## Behavioral/Social/Professional Attributes

The student is expected to have the emotional stability required for the full utilization of his/her intellectual abilities, the exercise of sound judgment, complete assessment and intervention activities, and develop sensitive interpersonal relationships with patients/clients, families and others responsible for health care. The individual is expected to have the ability to function effectively under stress, and exhibit the professional values of responsibility, accountability, altruism, human dignity, integrity and social justice.

## Admission to the Program

Candidates applying for admission to the physical therapy program from high school are required to have no less than three years of high school college preparatory mathematics (four years are preferred), one year of biology, one year of chemistry and one year of physics. In addition, the scores of the Scholastic Assessment Test or the College Entrance Examination board of the American College Testing program are important considerations. Related health care experience is highly desirable. Prospective candidates also must satisfy general Quinnipiac University admission requirements.

All applications must include two letters of reference, and a personal interview may be required with representatives of the admissions office to discuss program requirements and the applicant's professional interests and commitments. Applicants must have observation hours in at least two different clinical settings, preferably one in a rehabilitation facility and one in an acute care setting. A minimum of 10 hours in at least two settings ( 20 hours total) is required.

Applicants should forward to Admissions a signed note from the physical therapist at each setting verifying observation hours. Applications are accepted for admission to the fall semester only. All applications are processed and screened by the vice president and dean for admissions for selection to the program. Reference letters, other correspondence and inquiries relating to an
application should be directed to the dean of undergraduate admissions. Admission to Quinnipiac does not guarantee admission to the professional graduate DPT program in physical therapy, unless officially accepted into the program as a freshman.

## Post-Bachelor's Doctor of Physical Therapy (DPT)

 Beginning in Fall 2013, students who have a bachelor's degree and have complete required prerequisites will be eligible to apply for admission into the three-year graduate DPT program. Admitted students will join students from the freshman entry BS/DPT program at Quinnipiac. Students entering the graduate DPT program will be selected from a pool of both internal (Quinnipiac) students and students from other institutions. Students wishing to apply to the graduate DPT program must use the Physical Therapy Centralized Application Service (PTCAS) for graduate physical therapy programs. The graduate DPT program at Quinnipiac University will be listed on the PTCAS website in Spring 2012 to allow students to apply for Fall 2013 admission. All graduate applications, transcripts, references and other supporting documentation for graduate admission must be submitted directly to PTCAS. For more information about PTCAS, visit www.ptcas.org. (Note: The use of PTCAS is not required for students admitted to Quinnipiac University as freshmen into the combined BS/DPT.) Admission to the program is competitive and based on available space in the program; therefore there can be no guarantee of graduate admission.
## Preprofessional Bachelor's Degree Program Requirements

To be eligible for the professional graduate DPT program, students must achieve a minimum overall GPA of 3.2 during the preprofessional component of the program. In addition, a 3.2 cumulative GPA in preprofessional program science and math course work is required for admission to the professional graduate DPT component of the program. ( D and F grades in the required preprofessional science and math courses are unacceptable.) Initial placement in the English and mathematics courses is determined by examination
and an evaluation of high school units presented. The minimum mathematics requirement is MA 141. The following courses in the preprofessional component must be successfully completed with a C- or better and are calculated into the GPA for science and math course work.

## Entry-Level Doctor of Physical Therapy

 Preprofessional Undergraduate Courses Calculated into 3.2 Math/Science Requirement
## Course

BIO 101-102
BIO 211-212
BMS 300-301
CHE 110-111
MA 141
MA 275
PHY 110-111

## Title

Credits
General Biology
Anatomy \& Physiology 8
Human Performance Physiology
General Chemistry
Calculus of a Single Variable I 3
Biostatistics
General Physics
Total Credits 46

## AP Credits and Course Substitutions

A student who scores a 4 on the AP exam for biology will be awarded credit for BIO 101-102.

A student who scores a 5 on the AP exam for calculus will be awarded credit for MA 141. If AP credits are awarded and accepted for CHE 110111, the following must be taken in its place.
CHE 210
Organic Chemistry I
CHE 210L
Organic Chemistry I Lab
CHE 211 Organic Chemistry II 3
CHE 211L Organic Chemistry II Lab
No other AP credits in the math and science categories will be accepted for program substitution. AP credits for other non-math and science core curriculum requirements will be accepted.

The Review and Evaluation Committee for the program in physical therapy is responsible for evaluating and screening candidates during the preprofessional and professional graduate components of the program. Requirements for the program in physical therapy were approved in conjunction with the accreditation of the program and are acceptable to the School of Health Sciences and Quinnipiac University administration.

## Professional DPT Program Requirements

Students in the professional graduate DPT component of the curriculum are required to achieve a GPA of 3.0 in each semester. In addition, a grade of $\mathrm{C}+$ or better is required in all professional graduate component courses. Students whose averages for each semester fall below 3.0 or receive a grade below $\mathrm{C}+$ are subject to dismissal from the program. Transfer students are considered for admission to the professional graduate DPT program on a space-available basis.

In addition to these academic requirements, all DPT students must be aware that there are additional requirements necessary to participate in the four scheduled clinical affiliations. Specific health requirements, including but not limited to: titers for mumps, measles and rubella, varicella and hepatitis B , annual physical exams, two-step PPDs, flu shots, current CPR certification and other mandates must be completed within the timeframe established by the clinical site at which a student has been placed. In addition, criminal background check updates and drug testing also may be required. These mandates are facility-specific and change frequently without notice. Quinnipiac University has no authority over any clinical facilities' protocols. Students must comply with what is required at their specific clinical affiliation. All associated expenses for the affiliation, including travel and housing, are the responsibility of the student.

## Combined Athletic Training (AT) Doctor of Physical Therapy (DPT) Degree

Select candidates from high school may apply to the combined AT-DPT degree. Upon completion of four years of study, students receive a bachelor of science in athletic training and are guaranteed admission into the three-year graduate DPT program. All preprofessional requirements of the professional graduate DPT program are required for those students selected for admission into the combined AT-DPT degree.

## Curriculum for four-year BS in

## Athletic Training for Freshman Entry (4+3) AT-DPT majors

A total of 132 credits is required for completion of the BS in athletic training.

| Course | Title | Credits |
| :--- | :--- | ---: |
| Fall Semester, First Year |  |  |
| BIO 101 | Science (UC) | 4 |
| CHE 110 | General Chemistry I with Lab | 4 |
| EN 101 | Freshman Composition (UC) | 3 |
| UC | Fine Arts | 3 |
| QU 101 | The Individual in the Community | 3 |
|  |  | Total 17 |
| Spring |  |  |
| Semester, First Year |  |  |
| AT 114 | Introduction to AT/SM | 2 |
| AT 115 | Introduction to Kinesiology | 3 |
| AT 116 | Introduction to Fitness \& Conditioning* | 2 |
| BIO 102 | Science (UC) | 4 |
| CHE 111 | General Chemistry II with Lab | 4 |
| EN 102 | Freshman Composition (UC) | 3 |
|  |  |  |

Total 18

## Fall Semester, Second Year

AT 214 Care \& Prevention of Athletic Injuries* 3
AT 216 Emergency Management of Athletic Trauma* 3
AT 250 Introduction to Evaluation \&
Treatment of Musculoskeletal Injury* 4
BIO 211 Anatomy \& Physiology I 4
MA 275 Quantitative Literacy (UC) 3
Total 17
Spring Semester, Second Year
AT 215 Therapeutic Modalities* 4
AT 235 Evidence-Based Practice 2
$\begin{array}{lll}\text { AT } 251 & \text { Evaluation \& Treatment of the Lower } \\ & \text { Extremity Musculoskeletal Injuries* }\end{array}$
AT 290 Clinical Practicum I* 3
BIO 212 Anatomy \& Physiology II 4
Total 17
Fall Semester, Third Year
AT 330 Nutrition for Sports \& Fitness 3
$\begin{array}{lll}\text { AT } 350 & \begin{array}{l}\text { Evaluation and Treatment of the Upper } \\ \text { Extremity Musculoskeletal Injuries* }\end{array} \\ & 4\end{array}$
AT 390 Clinical Practicum II* 3
BMS 300 Physiology of Human Performance I 4
QU 201 The National Community 3
Total 17
Spring Semester, Third Year
AT 351 General Medical Assessment \& Treatment* 4
AT 352 Evaluation \& Treatment of the Spinal Injuries* 4
AT 391 Clinical Practicum III* 1
BMS 301 Physiology of Human Performance II 4
PSY 101 Social Sciences (UC)
Total 16

## Fall Semester, Fourth Year

AT 450 Administration \& Management 3
AT 490 Clinical Practicum IV* 1
PHY 110 General Physics I with Lab 4
PSY 272 Abnormal Psychology 3
QU 301 Seminar on Global Community 3
Total 14
Spring Semester, Fourth Year
AT 491 Clinical Practicum V* 3
MA 141 Calculus of a Single Variable (UC) 3
PHY 111 General Physics II with Lab 4
UC Humanities 3
UC Humanities 3
Total 16
Total Credits 132
*These AT courses have a laboratory and/or clinical component.

## Curriculum for three-year BS in <br> Health and Science Studies for Freshman <br> Entry (3+3) PT majors

A total of 122 credits is required for completion of the $B S$ in health and science studies.
Fall Semester, First Year
Course Title Credits
BIO 101/101L General Biology I with Lab (UC Science) 4
CHE 110/110L General Chemistry I with Lab 4
UC Written English (placement by exam) 3
(usually EN 101)
UC Mathematics (placement by exam)
(MA 141 Calculus I, program requirement) 3
QU 101 Core Seminar I, Individual in the Community 3
Total Credits 17

## Spring Semester, First Year

BIO 102/102L General Biology II with Lab (CC Science) 4
CHE 111/111L General Chemistry II with Lab 4
UC Written English (usually EN 102) 3
UC Social Sciences elective
(PS 101 General Psychology) 3
UC Humanities elective 3
Total Credits 17
Summer Online

$$
\begin{array}{ll}
\text { Elective } & 3 \\
\text { Elective } & 3
\end{array}
$$

Total Credits 6
Fall Semester, Second Year
BIO 211/211L Anatomy \& Physiology I with Lab 4
PHY 110/110L General Physics I with Lab 4
$\begin{array}{lll}\text { UC } & \begin{array}{l}\text { Mathematics (MA 275 Biostatistics } \\ \text { program requirement) }\end{array} & 3\end{array}$
MSS 150 Speech as Communication 3
QU 201 Core Seminar II, Global Community 3
Total Credits 17

| Spring Semester, Second Year |  |
| :---: | :---: |
| BIO 212/212L Anatomy \& Physiology II with Lab |  |
| PHY 111/111L General Physics II with Lab |  |
| UC | Humanities elective |
| BIO 205 | Bioethics |
| QU 301 | Core Seminar III |
|  | Total Credits |
| Summer Online (social sciences elective) |  |
| PS 272 | Abnormal Psychology (UC) |
|  | Elective |
|  | Total Credits |
| Fall Semester, Third Year |  |
| BMS 300 | Human Performance Physiology I with Lab |
| BMS 200 | Biology of Aging |
| BIO 329 | Neurobiology |
| UC | Fine Arts elective |
|  | Elective |
|  | Total Credits |
| J TERM (three weeks online during intersession) |  |
|  | Elective |

Total Credits 3
Spring Semester, Third Year
BMS 301 Human Performance Physiology II with Lab 4
AT 440 Biomechanics 3
AT 214L Care \& Prevention of Athletic Injuries 4
NU 351 Nutrition in Health \& Illness 3
HM 404 Legal Aspects of Health Care Delivery 3
Total Credits 17
Summer Online
Elective courses
6
Total Credits 6

## Curriculum for four-year BS in

 Health and Science Studies for Freshman Entry (4+3) PT majorsA total of 122 credits is required for completion of the BS in health and science studies.
Fall Semester, First Year
Course Title Credits
BIO 101/101L General Biology I with Lab (UC Science) 4
CHE 110/110L General Chemistry I 4
UC Written English (placement by exam) 3
(usually EN 101)
UC Mathematics (placement by exam) (MA 141 Calculus I, program requirement) 3
QU 101 Core Seminar I, Individual in the Community 3
Total Credits 17
Spring Semester, First Year
BIO 102/102L General Biology II with Lab (CC Science) 4
CHE 111/111L General Chemistry II with Lab 4
UC Written English (usually EN 102) 3

Social Sciences elective (PS 101,
General Psychology)
UC Humanities elective

## Total Credits 17

| Fall Semester, | Second Year |  |
| :--- | :--- | :--- |
| BIO 211/211L | Anatomy \& Physiology I with Lab | 4 |
| UC | Mathematics (MA 275 Biostatistics |  |
|  | program requirement) | 3 |
| QU 201 | Core Seminar II, Global Community | 3 |
|  | Elective | 3 |
|  | Elective | 3 |

Total Credits 16
Spring Semester, Second Year
BIO 212/212L Anatomy \& Physiology II with Lab 4
$\begin{array}{ll}\text { UC } & \begin{array}{l}\text { Social Sciences elective } \\ \text { (PS } 272 \text { Abnormal Psychology) }\end{array}\end{array}$
MSS 150 Speech as Communication 3
UC Fine Arts elective 3
Elective 3
Total Credits 16
$\begin{array}{lll}\text { Fall Semester, Third Year } \\ \text { BMS } 300 & \text { Human Performance Physiology I with Lab } 4\end{array}$
PHY 110/110L General Physics I with Lab 4
QU 301 Core Seminar III 3
BMS 200 Biology of Aging 3
Total Credits 14
Spring Semester, Third Year
BMS 301 Human Performance Physiology II with Lab 4
PHY 111/111L General Physics II with Lab 4
NU $351 \quad$ Nutrition in Health \& Illness 3
Elective 3
Total Credits 14
Fall Semester, Fourth Year
AT 440 Biomechanics 3
BIO 205 Bioethics 3
BIO 329 Neurobiology 3
UC Humanities elective 3
Elective 3
Total Credits 15

## Spring Semester, Fourth Year

| AT 214L | Care \& Prevention of Athletic Injuries | 4 |
| :--- | :--- | :--- |
| HM 404 | Legal Aspects of Health Administration | 3 |
|  | Science elective | 3 |
|  | Elective | 3 |

Total Credits 13
The sequencing of course work for the three- or four-year preprofessional track is flexible; however, all requirements in the curriculum must be completed prior to entry into the graduate DPT program.

## Three-year Post-Bachelor's Doctor of Physical Therapy (DPT degree) for Freshman Entry PT Students, Internal and External Transfer BS Students

A total of 112 credits is required for completion of the DPT. Fall Semester, First Year
Course Title Credits

PT 512 Human Anatomy I 4
PT 505 Kinesiology I 3
PT 503 Physical Therapy Process I 2
PT 514 Neuroanatomy I 2
PT 548 Physical Agents 3
PT 519 Issues/Topics in Physical Therapy 2
Total Credits 16
Spring Semester, First Year
PT 513 Human Anatomy 4
PT 506 Kinesiology II 2
PT 515 Neuroanatomy II 2
PT 504 Physical Therapy Process II 2
PT 528 Musculoskeletal I 4
PT 502 Introduction to Clinical Decision Making 3
Total credits 17
Summer Semester
PT 531 Acute Care \& Cardiopulmonary I 4
PT 520 Pathophysiology I 3
PT 523 Applied Parmacology I 1
PT 529 Musculoskeletal II 4
PT 569 Education/Community Health Wellness 2
PT 590 Introduction to Physical Therapy Research 2
Total Credits 16
Fall Semester, Second Year
$\begin{array}{lll}\text { PT } 671 & \text { Clinical Education I (10-12 weeks) } & 4 \\ \text { PT } 675 & \text { Normal/Abnormal Gait (online) } & 1\end{array}$
PT $675 \quad$ Normal/Abnormal Gait (online) Total Credits 5
Spring Semester, Second Year
PT 666 Research Application 2
PT 629 Musculoskeletal III 3
PT 626 Pathophysiology II 3
PT 627 Applied Pharmacology II 1
PT 628 Acute Care \& Cardiopulmonary PT II 3
PT 664 Neurological Rehabilitation I 4
Total Credits 16
Summer Semester
PT 668 Psychosocial Aspects of Physical Disability 2
PT 658 Differential Diagnosis 3
PT $665 \quad$ Neurologic Rehabilitation II 3
PT 661 Administration \& Management 3
PT 657 Diagnostic Imaging 3
Total Credits 14

Fall Semester, Third Year
PT 736 Neurological Rehabilitation III 3
PT $749 \quad$ PTP Selected Topics in Rehabilitation 3
PT $768 \quad$ Professional Issues in PT 2
PT 767 Capstone Research Project 2
PT $759 \quad$ Advanced Clinical Decision Making 2
PT $744 \quad$ Manual Therapy/PT Skills elective 2
Total Credits 14
Spring Semester, Third Year
PT $781 \quad$ Clinical Internship I (10-12 weeks)
PT $782 \quad$ Clinical Internship II (10-12 weeks)
Total Credits 9
Summer Semester
PT $783 \quad$ Clinical Internship III (10-12 weeks)
Total Credits 5

## School of Nursing

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## School of Nursing

## North Haven Campus, Building 1

Administrative Officers Phone
DeanAssistant Dean for Career Services
Undergraduate ProgramBachelor of Science in Nursing
Jean Lange ..... 203-582-8444
Associate Dean
203-582-6528
Leslie Neal-Boylan203-582-3656
Graduate ProgramDoctor of Nursing Practice
Cynthia Christie
Director ..... Phone
Lisa O'Connor ..... 203-582-8549
Director
Lynn Price ..... 203-582-8678

## Mission Statement

The School of Nursing prepares nurses with disciplinary knowledge and clinical experience to become full partners in health care.

## Career Services

In the School of Nursing, the assistant dean for career services works with students to explore majors and career interests through individual consultations and group sessions, and guides them through a career development process. Assistance is provided with resume and cover letter writing, interview preparation, conducting a job search and graduate school applications. Students can participate in experiential learning through community service as well as internships, part-time and summer employment. A health professions career fair is held every spring at the North Haven Campus.

## Values

School of Nursing values include:

- diversity of ideas, persons and cultures
- supportive learning environments
- scholarly undertakings to advance education and practice
- ethical conduct in personal and professional arenas
- holistic nursing across the spectrum of health care
- interprofessional education and collaboration
- innovative learning methodologies
- systematic assessment and evaluation
- lifelong learning


## General Information

Nursing is a profession based on science, a culture of compassion, commitment to best practices, and connection to individuals. The practice of nursing is research-based, goal-directed, creative and concerned with the health and dignity of the whole person. The art of delivering quality nursing care depends upon the successful mastery and application of intellectually rigorous nursing knowledge.

The School of Nursing is located on the North Haven Campus in a state-of-the-art facility.

## Degrees in Nursing

## Bachelor's Degree

Bachelor of Science in Nursing
Traditional BSN Track for High School Graduates
Accelerated BSN Track for Second Degree Students

## Graduate Degrees

Doctor of Nursing Practice
Post-bachelor's study:
Adult-Gerontology Nurse Practitioner Family Nurse Practitioner
Post-master's study:
Care of Populations
Please note-Courses with clinical components use multiple clinical education centers. Students are responsible for their transportation to and from these clinical agencies.

## Undergraduate Program Information

The undergraduate nursing curriculum, which integrates holism, fosters professional socialization for future roles and responsibilities within the profession. Graduates are prepared as generalists to provide evidence-based care. Bachelor's degree nursing education prepares the graduate for entry into professional nursing practice and provides the foundation for graduate study. The undergraduate nursing program is accredited by the National League for Nursing Accrediting Commission, and has applied for accreditation from the Commission on Collegiate Nursing Education.

## Graduate Program Information

A doctoral-level graduate program preparing adult-gerontology and family nurse practitioners is available for post-bachelor's degree nurses. The program also offers a doctoral-level postmaster's track. For more information about these offerings, please see the Graduate and Online Studies section of the catalog. The graduate program has applied for accreditation from the CCNE.

## Admission Requirements: Undergraduate Nursing

The requirements for admission into the undergraduate nursing program are the same as those for admission to Quinnipiac University.

## Progression Requirements <br> Preprofessional Progression Policy

1. Students must complete all preprofessional component courses, including all sciences, by the end of the spring semester of their sophomore year prior to starting the professional component in the fall.
2. A minimum cumulative grade point average of 3.0 is required for progression. A student who does not meet these progression requirements will be required to transfer to another major.
3. Freshman and sophomore students who cannot mathematically achieve a cumulative GPA of 3.0 by the end of their sophomore year will be advised to change their major.
4. If a sophomore student has not completed all of the preprofessional course requirements by the end of the spring sophomore semester, the student must consult with his/her adviser and obtain permission to take summer courses from the dean or program director.

## Professional Progression Policy

1. To progress and remain in good standing, junior and senior students must attain a semester GPA of $3.0(\mathrm{~B})$ and receive a grade of C or higher in each classroom and laboratory experience ( 73 or higher) and a Pass ( P ) in all clinical practica.
a. A student who received less than a C (73) in one nursing course ( $\mathrm{C}-, \mathrm{D}, \mathrm{F}$ ) is unable to progress to the next semester. This student will be given the opportunity to repeat the failed nursing course the next academic year.
b. A student who receives less than a $\mathrm{C}(73)$ in more than one nursing course ( $\mathrm{C}-, \mathrm{D}, \mathrm{F}$ ) will not be permitted to progress in the program and will be required to change his/her major out of nursing.
c. A student who receives a grade of Incomplete
(I) in any nursing course (lecture, lab or practicum) must meet ALL course requirements for conversion to a letter grade or Pass (P) before the start of the subsequent semester. Failure to do so will require the student to withdraw from the nursing major.
2. A student who earns grades of C or better in all nursing courses yet has less than a 3.0 semester GPA will be placed on academic probation and will receive an academic plan to progress in the nursing major. This student must achieve a 3.0 semester GPA by the end of the next semester. The student who does not meet these academic criteria will be required to change his/her major out of nursing.
3. A student must have a 3.0 semester and cumulative GPA in the last semester of his/her senior year to meet the graduation requirements for the bachelor of science in nursing.
4. A student who is performing at an unsatisfactory level either academically or clinically at the midsemester point will be notified by the program director. Written notification will be sent to the student via email. A student who is having difficulty with academic performance and needs help with study skills or test taking strategies will be advised to utilize the resources offered by the Learning Center.
5. At the end of each semester, course grades, semester and cumulative GPAs for each nursing student are reviewed by the program director.

## Appeal Process

1. A student wishing to appeal a progression decision may write a letter to the director of the undergraduate nursing program within one week of receiving notice of his/her inability to progress.
2. Appeals will be considered by a Faculty Appeals Committee and results will be communicated in writing to the student.

The Policy for Advanced Standing/Placement, as stated in the Quinnipiac catalog, applies to the student seeking admission into the undergraduate program in nursing. Quinnipiac normally grants transfer credit for courses appropriate to the chosen curriculum, completed with a grade of C or better, at a regionally accredited post-secondary institution. Transfer students are evaluated once annually for the fall semester, and are accepted on a spaceavailable basis. A minimum GPA of 3.0 is required for consideration. A transfer student's catalog year and curriculum plan will be assigned based on their year of entry (sophomore or junior year). Advanced standing or placement is considered for entering freshmen who have completed college-level credit courses through a recognized college or university,
achieved an acceptable score on an appropriate examination of: 1) the Advanced Placement Program of the College Entrance Examination Board; 2) the International Baccalaureate; or 3) the College Level Examination Program.

Graduates are eligible for registered nurse licensure in Connecticut or other states upon satisfactory achievement of the National Council Licensure Examination for Registered Nurses (NCLEX-RN). In Connecticut, the laws of the state provide limitation to eligibility for licensure for any person convicted of a felony (according to Public Act 11.242). A copy of the act is available for review in the nursing department. Select learning experiences across the health care continuum begin with the first nursing course and continue throughout the curriculum. Students are responsible for transportation to and from clinical agencies. CPR certification must be obtained prior to enrolling in the first nursing course, and renewed annually. The nursing department has several additional health requirements in addition to those specified by the University, as well as technical standards. A criminal background check is required; drug testing may be required.

## Bachelor of Science in Nursing

The undergraduate nursing program at Quinnipiac University prepares students with the knowledge, skills and attitudes to provide holistic care for diverse individuals, families and populations across the lifespan. Achievement of the following outcomes enables graduates to practice as nurse generalists within complex health care systems.

## Undergraduate Program Outcomes

Our bachelor's degree graduates demonstrate proficiencies in following areas:

1. Integration of liberal education for generalist nursing practice
2. Basic organizational and systems leadership for quality care and patient safety
3. Scholarship for evidence-based practice
4. Information management and application of patient care technology
5. Health care policy, finance and regulatory environments
6. Interprofessional communication and collaboration for improving health outcomes
7. Clinical prevention and population health
8. Professionalism and professional values
9. Bachelor's degree generalist nursing practice

| BS in Nursing Curriculum |  |  |
| :--- | :--- | ---: |
| Course | Title | Credits |
| Freshman Year, Fall Semester |  |  |
| BIO 101/101L | General Biology (UC) with Lab | 4 |
| EN 101 | Freshman Composition I (UC) | 3 |
| UC | Fine Arts (UC) | $3-4$ |
| or CHE 106/ | Chemical Principles with |  |
| 106L | Biological Applications with Lab |  |
| or MA 107* | College Algebra |  |
| UC | Social Science |  |
| QU 101 | The Individual in the Community | 3 |

Total 16-17
*MA 107 may be needed based on placement exam score
Freshman Year, Spring Semester
BIO 102/102L General Biology (UC) with Lab 4
EN 102 Freshman Composition (UC) 3
$\begin{array}{lll}\text { UC } & \text { Fine Arts } \\ \text { or CHE 106/ } & \text { Chemical Principles with Biological } & 3-4\end{array}$
106L Applications with Lab
MA 275 Biostatistics (UC-Quantitative Literacy)
or MA 206 Statistics for the Behavioral Sciences 3
(UC-Quantitative Literacy)
UC Social Science II 3
Total 16-17
Sophomore Year, Fall Semester
BIO 211/211L Principles of Anatomy \& Physiology I with Lab 4 BMS 213/213L Microbiology \& Pathology with Lab or UC Fine Arts 3-4
UC UC Elective 3
UC Humanities I 3
or QU 201 The National Community
or UC
Elective
Total 13-14
Sophomore Year, Spring Semester
BIO 212/212L Principles of Anatomy \& Physiology with Lab 4
UC Humanities II
or
BMS 213/213L Microbiology \& Pathology with Lab 3-4
UC UC Elective 3
or QU 201 The National Community 3
Open Elective* 3
or UC Fine Arts
Total 16-17
*If MA 107 is taken, this fulfills open elective requirement.
Junior Year, Fall Semester
NUR 300 Core Concepts in Nursing 3
NUR 302 Nursing Science \& Information Literacy 3
NUR 304 Health Promotion \& Wellness 3

Health Assessment
NUR 307 Core Nursing Practicum
NUR 330L Holistic Nursing Integration Lab I

Junior Year, Spring Semester
NUR 322 Care of Women, Children \& Families 4
NUR 323 Women, Children \& Families Practicum 2
NUR 324 Care of Adults with Complex Health Needs I 4
NUR 325 Adult Care Practicum I 2
NUR 326 Pathophysiology \& Pharmacotherapy I 2
NUR 340L Holistic Nursing Integration Lab II
Total 16
Senior Year, Fall Semester
NUR 400 Psychiatric-Mental Health Nursing 3
NUR 401 Psychiatric-Mental Health Practicum 2
NUR 408 Research \& Evidence-Based Nursing Practice 2
NUR 424 Care of Adults with Complex Health Needs II 3
NUR 425 Adult Care Practicum II 2
NUR 426 Pathophysiology \& Pharmacotherapy II 2
NUR 430L Holistic Nursing Integration Lab III
Total 16
Senior Year, Spring Semester
NUR 428 Community \& Public Health Nursing 3
NUR 429 Community \& Public Health Nursing
Practicum
NUR 432 Contemporary Issues \& Roles in Nursing 3
NUR 433 Capstone Practicum 2
NUR 434L Capstone Seminar Lab 1
QU 301 The Global Community 3
NUR 440L Holistic Nursing Integration Lab IV 2
Total 16
Grand Total 127
The curriculum for the professional component is subject to modification as deemed necessary by the nursing faculty to provide students with the most meaningful educational experience. Initial placement in English and mathematics courses is determined by examination. The minimum mathematics requirement is MA 275 or its equivalent. Courses must be taken in the semester indicated unless prior approval is obtained from the student's academic adviser.

## Accelerated BSNTrack for Second Degree Students

The accelerated BSN track is designed for individuals with a bachelor's degree in another discipline, who are interested in pursuing nursing as a second bachelor's degree. The curriculum builds on the individual's prior educational
preparation, and the degree is completed in one calendar year, starting in August with students concentrating solely on nursing courses.

Accelerated BSN students complete a traditional junior year curriculum in the nursing program and then an intensive senior summer session. The accelerated BSN must be pursued on a full-time basis and consists of one full calendar year.

Admission requirements include graduation from a regionally accredited college or university with a cumulative GPA of at least 3.0 (B) and completion of prerequisite course work (may be taken at Quinnipiac). All prerequisite courses must be taken within the last five years with a grade of C or better; and must be completed prior to entering the accelerated track. Transfer credit is evaluated according to University policy. The application deadline is January 2; applicant information is available on the Quinnipiac website. The BSN degree under this track is 127 credits, including: prerequisites, general education requirements and nursing courses are distributed as follows:
Nursing Course Prerequisites Course Credits
Anatomy \& Physiology I \& II with Labs ..... 8
Microbiology with lab ..... 4
Statistics ..... 3
Total 15
General Education Courses
English ..... 6
Fine Arts ..... 3
Social Science ..... 6
Humanities ..... 6
Science ..... 7
Quantitative Literacy ..... 3
UC and open electives ..... 20

Total 51
Total Nursing Credits 61 Grand Total 127

A detailed curriculum plan and additional information are available from the accelerated track coordinator. Graduates are eligible to take the NCLEX-RN examination, and qualify for entry-level nursing positions, or graduate study. Those students contemplating applying for graduate study in nursing at Quinnipiac should refer to the Graduate and Online Studies section of the catalog.
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## Part-time Undergraduate Studies

## Office of Undergraduate Admissions Echlin Center

Quinnipiac University recognizes that the desire to obtain a college education may be limited for the adult student. The demands of work or family may not allow continuation or completion of a degree in the traditional manner. Quinnipiac offers the part-time student an opportunity to attend classes and pursue a degree with flexible scheduling and customized degree programs. Quinnipiac offers a variety of ways to use previous collegiate and noncollegiate learning experiences to award college credit and shorten the time needed to earn a degree.

Part-time students are an integral part of the University and benefit from the resources of Quinnipiac's highly regarded schools of Business, Communications, Education and Health Sciences, and the College of Arts and Sciences. Instruction is provided by faculty experienced in working with adult students.
Departmental chairpersons and select faculty work with part-time students as academic advisers. Free tutoring services are available in the Learning Center, which maintains evening hours.

Quinnipiac also recognizes student financial needs through creative payment plans and financial assistance. Part-time students receive personal service from a committed staff and faculty.

## Part-time Admission Procedures

Adult students starting college for the first time, returning to school after an absence, or considering transferring to the College of Arts and Sciences or the Schools of Business, Communications or Health Sciences should contact the Office of Parttime Admissions at 203-582-8612 for an appointment at any time of the year to discuss the courses or programs offered by Quinnipiac.

Applications for admission may be obtained from the Quinnipiac website (www.quinnipiac.edu). The admissions requirements for undergraduate applicants listed in this catalog are the same for part-time candidates, with the following exceptions:

1. Applicants who graduated high school more than five years ago or who have successfully completed the equivalent of one year ( 30 credits) of college study are not required to submit score results for the Scholastic Assessment Test (SAT) of the College Entrance Examination Board (CEEB) or of the American College Testing Program (ACT)
2. Applicants who have earned an associate's degree from a regionally accredited college need not submit high school transcripts.
3. An interview is recommended.

## Non-Matriculated Students

Adult part-time students may take a limited number of courses without applying for admission (non-matriculated) if they are attempting to build an academic record after many years of absence from school, or are not ready to pursue a degree program. To be considered for non-matriculated study, the student must have earned a high-school diploma at least five years ago. A maximum of 6 credits may be taken in any semester. Advanced courses may require specific prerequisites and permission for registration. Non-matriculated students must contact the registrar's office for further information about registration.

A student who does not meet the above requirements may not register as a non-matriculated student and must contact the admissions office at 203-582-8612 to apply for part-time study and provide official high-school and college transcripts. Current non-matriculated students are encouraged to apply for admission/change of status as soon as possible to ensure guidance with course selection
and a degree program. No more than 12 credits may be completed by non-matriculated students in the School of Business.

## Changing Status-Non-degree to Degree

 Students who have earned credit at Quinnipiac and wish to apply for matriculation into a degree program in the College of Arts and Sciences or the Schools of Business, Communications or Health Sciences, should initiate the admission process by filing a "Change of Status" form available from the Office of Part-time Admissions. All appropriate documents required by the University for admission should be sent to the same office. Course work already completed at Quinnipiac as a nondegree student is considered in the admission process, as well as course work transferred from other institutions. Students should contact the Office of Part-time Admissions at 203-582-8612 with any questions.
## Academic Good Standing Policy

All part-time students, whether matriculated or non-matriculated, are subject to the Academic Good Standing Policy of the University. (See pages 27-28 in the Academic Information section.)

## Financial Assistance

## Quinnipiac Tuition Assistance Program

Undergraduate part-time students who are beginning their study in traditional course work and those who have special financial needs can apply for Quinnipiac Tuition Assistance (QTAP) grants. QTAP grants are awarded shortly before the start of the fall and spring semesters and may be used only to defer tuition costs. The application and a copy of the applicant's most recent tax return should be submitted by the deadline dates: Jan. 4 for the spring semester and Aug. 15 for the fall semester. Students must file a new application for each semester they request aid. Applications may be obtained through the Office of Part-time Admissions.

## Federal Financial Aid Programs

Undergraduate part-time students who have been admitted by Quinnipiac into a degree program and are registered for a minimum of 6 credits each semester are eligible to apply for federal financial
aid programs (loans and grants). The free application for Federal Student Aid (FAFSA) is available on the Web at www.fafsa.ed.gov. Students taking fewer than 6 credits may be eligible for federal Pell Grants. Contact the financial aid office for information and assistance.

## Employer Tuition Benefits

Quinnipiac University works with students to make the most of their employer's educational benefits plan. If your company does not have a formal agreement with Quinnipiac but does offer educational benefits, you can defer two-thirds of your tuition charges. All that is needed is an original employer letter verifying participation in the company tuition reimbursement plan during the semester for which they are registering. At registration, the student pays one third of the tuition plus fees and signs a promissory note for the tuition balance. The final tuition payments are due five weeks after the last day of the semester, which allows time for tuition reimbursement checks to be issued by the employer. Contact the bursar's office for information.

## Payment Plans

Students who do not participate in company tuition reimbursement plans can still set up a tuition payment plan. Plans are offered through Nelnet Business Solutions on an annual semester basis. There is a charge of $\$ 75$ to enroll. Contact the bursar's office for assistance.

## Dislocated Worker Program

In cooperation with the New Haven and MeridenMiddlesex Regional Workforce Development Boards, Quinnipiac offers certified dislocated workers wishing to explore new educational opportunities a one-course scholarship. Individuals who have been certified as dislocated workers should contact the New Haven or MeridenMiddlesex Regional Workforce Development Boards for information and an application prior to making an appointment with the Office of Parttime Admissions.

## Academic Policies

The detailed academic policies that govern all students are found in the Quinnipiac University Student Handbook and in this catalog. Below are the basic academic policies that govern part-time students.

## Placement Tests

To ensure appropriate placement in English courses, all transfer students with only one semester of English transferring in from another school must take the English placement test.

A math placement exam is also required to determine appropriate placement before registering for math courses required in all majors; and a language placement test is required for students continuing in a language from high school.

There is no fee for the placement exams, and arrangements can be made for taking the tests by calling the Office of Part-time Admissions.

## Transfer of Credit

Credits for college courses taken at other regionally accredited institutions normally may be transferred if they carry a grade of C or better. Evaluation of University Curriculum transfer credit is completed by the transcript evaluator. Additional credits are reviewed by the school to which the student has transferred. Official acceptance of transfer credit is completed upon matriculation.

## CLEP, Challenge Exam Policies

Quinnipiac University participates in the College Level Examination Program (CLEP), which provides an opportunity for adult and nontraditional students to obtain credit through examination (credits are accepted as transfer). Information regarding CLEP exams may be obtained from the Office of Part-time Admissions. Students also may petition to earn credit through challenge examinations. Applications for these exams are reviewed by the dean or associate dean of the Schools of Communications, Health Sciences or College of Arts and Sciences.

## Credit for Prior Learning

Adults with high school diplomas or equivalency who have acquired, through life experience, knowledge that they can document and verify, may have a head start on a degree from Quinnipiac.
Examples may include:

- past and present paid work
- military service
- community service work
- in-service training
- independent reading, viewing and listening
- non-credit courses

The first step is to schedule an interview with part-time admissions. We will discuss your work/life experience and any college credit you may have accumulated previously to determine whether or not this program meets your needs. If credit for prior learning is appropriate for you, your next step is to discuss possible course equivalencies with the dean of the school in which you are seeking credit. Students must be matriculated at Quinnipiac to earn credit for prior learning.

## Registration

Course schedules for each semester may be obtained by calling the Office of Part-time Admissions at 203-582-8612. Registration may be completed in person, by mail or by FAX at the Office of the Registrar. Continuing students may register via the Web for a limited time each semester. Registration dates and procedures are listed in the course schedule. Students should check course descriptions for any specific prerequisites prior to registering. Course changes and updates are posted on the Quinnipiac website: www.quinnipiac.edu. New students should make an appointment with the Office of Part-time Admissions prior to registration.

## Special Programs

## No-Risk Enrollment-Our Guarantee of 100\% Satisfaction

We guarantee the quality of our courses through our No-Risk Enrollment option. Register for your first course as a part-time student and, if you decide to withdraw within the first three weeks, receive a full refund. (The No-Risk period varies in length for accelerated courses.) Forms are available through the Office of Part-time Admissions and must be submitted with your course registration form.

## Accelerated, Online and Saturday Courses

Part-time students may be able to complete some requirements more rapidly and shorten the path to their degrees with these options. A limited number of accelerated, online and Saturday courses are offered during the fall and spring semesters.

## Auditing Courses

Alumni and seniors (65 and older) may audit courses on a space-available basis. The student is responsible for the registration fee and any lab or course fees. In addition, seniors may take courses for credit, on a space-available basis, by paying the registration fee and any lab or course fees. Questions should be directed to the registrar's office.


## Academic Programs

## Export Marketing Certificate

This career-directed program is designed in response to the growing need and opportunity for export of American goods and services. Both small and large businesses have an increasing need for managers trained in export marketing management.

The five courses of the certificate program can be applied to the BS program in international business.

## Required:

## Course <br> Title Credits

IB 201 Globalization \& International Business (UC) 3
IB 313 International Marketing \& Marketing Research 3
IB 324 Negotiating Internationally 3
IB 335 International Finance 3
IB 345 Two-way Management of the Global Supply Chain

Total Credits 15

## International Purchasing Certificate

Facing a growing demand for trained global purchasing managers from industries, this careerdirected program is designed in response to the growing needs of manufacturing, retail and service companies moving toward global sourcing of their raw materials, components and services. How can a firm use global supply chain to hedge against fluctuations in world market demand, price or exchange rate? In integrating a global supply chain, a firm faces many challenges including areas of trade law, product safety, environment protection, as well as logistics and finance.

The five courses of the certificate program can be applied to the BS program in international business.

## Required:

| Course | Title | edit |
| :---: | :---: | :---: |
| IB 201 | Globalization \& International Business (UC) |  |
| IB 335 | International Finance | 3 |
| IB 345 | Two-way Management of the Global Supply Chain |  |
| IB 352 | International Management |  |
| Plus, choose one of the following courses: |  |  |
| IB 324 | Negotiating Internationally |  |
| or IB 498 | Internship in Purchasing |  |

Total Credits 15

Individualized Bachelor Degree Program
Many part-time students who return to college already have a substantial amount of college credit earned in an associate's degree program, Credit for Prior Learning, or part-time studies. In addition, experienced students often have unique educational goals that are not met by traditional programs. These students need degree programs which a) can accommodate the maximum amount of previously acquired credit, and b) allow maximum flexibility in choosing courses to meet individual needs without adding to the total number of credits needed to graduate. To meet these needs Quinnipiac offers special general studies degree programs. These bachelor's degree programs (health and science studies and liberal studies) are built around Quinnipiac's University Curriculum. The dean or faculty adviser works with each student to establish a curriculum plan that makes maximum use of previously obtained credit and incorporates new courses that build indepth knowledge in the student's area of interest. Health and science studies and liberal studies programs are described in detail below.

## Bachelor of Science in

## Health and Science Studies

The health and science studies program provides an excellent opportunity for health care and science professionals who hold an associate's degree to obtain the bachelor's degree. The program provides the maximum utilization of previously acquired credits from academic and clinical training. An individual curriculum plan, approved by an academic adviser, can be designed that allows flexibility in choosing courses to build concentrations in the health and science fields, as well as in other areas such as business, management, psychology and sociology.
Program Requirements: ( 122 credits)
Foundational Science ( 20 credits) Credits
Biology 8
Chemistry 8
Physics 4
Health/Science Courses ( $\mathbf{3 0}$ credits)
Courses taken in a health or basic science area outside the requirement of the foundational science listed above.
Electives (33 credits)

## University Curriculum Requirements (39 credits)

## Credits

## EN 101 Elements of Composition I

EN 102 Elements of Composition II ..... 3
Quantitative Literacy ..... 3
QU 101, 201, 301 ..... 9
Fine Arts ..... 3
Social Sciences ..... 6
Humanities ..... 6
UC electives ..... 6

Science requirement may be satisfied through basic science core courses.

## Bachelor of Arts in Liberal Studies

The liberal studies major offers the opportunity for adult and non-traditional students to choose concentrations in a number of fields. Students have maximum flexibility in the utilization of previously earned credit and in the selection of new courses to meet their personal goals. Each program is individually designed by the student with approval by the dean of the College of Arts and Sciences. Students complete the College of Arts and Sciences requirements, 15 credits at the 300-level and $9-10$ courses in the area of concentration. Students entering under the new University Curriculum should consult with the dean of the College of Arts and Sciences.

## Bachelor of Arts and Bachelor of Science Degrees-Traditional Majors

Part-time students may enroll in virtually all of the bachelor's degree programs offered by the academic schools of the University (athletic training/sports medicine, nursing and occupational therapy require full-time status).

The following bachelor's degree program usually can be completed through evening study and normally does not require students to take classes during the day.

## Bachelor of Science

Health and Science Studies
Other majors in business, arts and sciences, health sciences and communications may be pursued on a part-time basis, but course work will need to be completed during the day. More information on these programs can be found in the sections for the Schools of Business, Communications, Health Sciences and College of Arts and Sciences.


## Graduate and Online Studies

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## Graduate and Online Studies

Graduate Admissions and Financial Aid
Dean of Graduate Admissions
Associate Director of Graduate Admissions
Associate Director of Graduate Admissions
Associate Director of Graduate Admissions
Director of Graduate Financial Aid
Assistant Director of Graduate Financial Aid
Quinnipiac University Online
Associate Vice President of Online Programs
Director of Admissions for Online Programs
Associate Director of Admissions
Associate Director of Admissions

## Program Directors

## College of Arts and Sciences

MS in Molecular and Cell Biology

## School of Business and Engineering

Associate Dean for Graduate Programs
Master of Business Administration
MS in Information Technology
MS in Organizational Leadership
Health Care Compliance Certificate
School of Communications
MS in Interactive Media
MS in Journalism
MS in Public Relations

## School of Education

Interim Dean
Associate Dean
Master of Arts in Teaching
MS in Teacher Leadership
Sixth-Year Educational Leadership
School of Health Sciences
Doctor of Physical Therapy
MHS Anesthesiologist Assistant
MHS Cardiovascular Perfusion
MHS Medical Laboratory Sciences
MHS Pathologists' Assistant
MHS Physician Assistant
MHS Radiologist Assistant
MS in Occupational Therapy
Certificate of Advanced Graduate Study in Occupational Therapy
School of Law
School of Nursing
Dean
Doctor of Nursing Practice

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## Mission Statement

Through its graduate programs, Quinnipiac University recognizes a substantial trend toward greater professionalism and the rapidly expanding body of knowledge in the fields of business, communications, education, health management and the health care, rehabilitative and laboratory sciences. The provision of graduate degrees is a logical extension of Quinnipiac's special mission, which is "to provide opportunity for an integrated liberal and technical education" that will enable students to prepare for and advance in their professional careers and to "make responsible decisions in a society that increasingly demands understanding of the humanities, the social and natural sciences and technology."

All graduate programs at Quinnipiac share three foundations. Instruction is provided by a team of academicians who hold the highest available academic credentials and practicing professionals who hold advanced positions in their field. Every graduate student is provided with the opportunity to obtain practical experience through supervised residencies, thesis research, special projects or small laboratory classes. Study in all graduate programs is advanced and builds on both undergraduate education and professional experience. Additional prerequisite courses are available and are needed by students who enter new fields at the graduate level.

## Graduate and Online Admission

Applications for all graduate programs, except law, may be obtained and submitted from www.quinnipiac.edu/gradadmission. For information about online admissions, visit the website at www.quinnipiac.edu/qu-online. Applicants are required to submit an application fee and official transcripts of all college-level work completed at other institutions. Applicants also are required to submit a letter of intent and resume (as stipulated by each specific program) and to make arrangements to have two letters of reference submitted.

Individual graduate programs have additional application requirements. For example, GMAT or GRE scores are required for admission into the MBA program. GRE scores are required for the MS in public relations program and the MHS in anesthesiologist assistant program (however, this
program will accept the MCAT in lieu of the GRE).

The Quinnipiac physician assistant program participates in the Central Application Service for Physician Assistants. Go to www.caspaonline.org for more information regarding the application process and fees. All applications, transcripts, references and other supporting materials are submitted directly to CASPA. Applicants may contact the Office of Graduate Admissions for information.

The Quinnipiac physical therapy program will begin accepting graduate students into the DPT program in Fall 2013. Applicants to the graduate DPT program must use the Physical Therapy Centralized Application Service (PTCAS). Quinnipiac University will be listed on the PTCAS website in Spring 2012. All graduate applications, transcripts, references and other supporting documentation for graduate admission must be submitted directly to PTCAS. (Note: PTCAS is not required for students admitted to Quinnipiac University as freshmen into the combined BS in health and science studies/DPT.

Submission of Graduate Record Examination scores is not required for admission into Quinnipiac's master's degree programs except for the MS in public relations program and the MHS in anesthesiologist assistant program. However, many program faculty find GRE scores a useful indication of a student's ability. Information about specific admissions requirements or standardized exams can be obtained from the Office of Graduate Admissions, www.quinnipiac.edu/gradstudies or www.quinnipiac.edu/quonline.

## International Student Admission

Applications for graduate study from international students are welcomed. International applicants must complete their application at least three months prior to their intended start term. Upon application, international students are requested to submit English language descriptions of universities and colleges attended including status as a public or private institution as well as recognition by government and accrediting agencies of the respective country.

All applicants from non-English-speaking countries must, in addition to all of the regular admissions requirements, provide TOEFL (Test of English as a Foreign Language) scores (go to
www.ets.org). In general, a minimum TOEFL iBT score of 90, Internet-based (575 paper-based, 233 computer-based) is required for admission. In lieu of TOEFL, applicants may submit IELTS (International English Language Testing System) scores (go to www.ielts.org). A minimum score of 6.5 on this exam, "B" or above on the CAE (Certificate of Advanced English), or "C" or above on the CPE (Certificate of Proficiency in English) is required. In lieu of TOEFL or IELTS, applicants may submit PTE-A (Pearson Test of English Academic) scores (available at www.pearsonPTE.com). A minimum PTE-A score of 61 is required. TOEFL, IELTS and PTE scores are valid for two years.

Candidates holding degrees from foreign institutions must provide notarized English translations and an official evaluation of their postsecondary records from an academic credential evaluation service.

International applicants are required to submit proof of adequate funds to complete their study at Quinnipiac before a visa application can be issued.

## Online Learning at Quinnipiac

Quinnipiac University was an early adopter of online learning. Since its founding in 2001, Quinnipiac University Online has developed a high level of expertise in the design and delivery of online learning. Online programs allow students to complete their course work weekly without attending a scheduled class date and time.

In addition to traditional on-campus programs, Quinnipiac University offers online master's degree programs, as well as certificate programs through the University's School of Business and Engineering, School of Communications, School of Education and School of Health Sciences.

Quinnipiac University Online also offers undergraduate courses during the summer. This popular option allows students to advance in their programs, catch up on required or prerequisite courses or expedite their time to degree completion. For information on summer program offerings, visit the website at www.quinnipiac.edu/qu-online.

Quinnipiac University offers students the best of both worlds by combining convenience and flexibility with an educational community that encourages personal connections, faculty guidance
and the opportunity to consult and collaborate with peers.

Quinnipiac University Online provides administrative and technical support to students and faculty for all online programs and courses at Quinnipiac University. Support staff members are available seven days a week via telephone or email to assist you. Email QUOnline@quinnipiac.edu or call 203-582-5669 with any questions.

## Combined Undergraduate/Graduate Programs in the College of Arts and Sciences

The Department of Biological Sciences offers a combined BS/MS program in biology and molecular and cell biology to qualified undergraduates in any of the concentration curricula: environmental science, evolution and genetics; molecular and cell biology; and physiology and comparative biology. (Students in the environmental science, evolution and genetics track may need to take additional courses.)

The MS degree in molecular and cell biology provides an excellent foundation for students intending to pursue studies in professional health care fields and doctoral programs. It also offers a competitive edge for students wishing to pursue a career in the biotechnology and biopharmaceutical industries. A minimum cumulative undergraduate GPA of 2.5 and 70 earned credits at Quinnipiac University are required for admission to the graduate program.

Students in the combined BS/MS program complete graduate-level biology courses during their senior year. A maximum of 9 credits may be used to fulfill undergraduate requirements. A bachelor of science in biology is granted upon satisfactory completion of all the undergraduate curriculum requirements, and is mandatory for matriculation into the degree-granting graduate program. Students complete the MS degree in molecular and cell biology in one additional year.

Students applying for admission are strongly encouraged to submit their application during the first semester of their junior year. Interested students should contact the chair of the department for an application. Meeting the minimum admissions standards does not guarantee admission to the program.

## Combined Undergraduate/Graduate Programs in Business

Quinnipiac University offers outstanding undergraduate students the opportunity to enroll in linked undergraduate/graduate degree programs that can be completed in five to six years. Combined-degree programs offered in the School of Business and Engineering include the MBA, MBA-CFA ${ }^{\circledR}$ track (chartered financial analyst), MBA/HCM track (health care management), MBA-SCM track (supply-chain management) and the MS in information technology. Students may apply for admission to the combined business programs upon earning 75 credits with a cumulative GPA of at least 3.0. If admitted, students may complete up to 10 credits of MBA courses during the senior year, 9 credits of which also fulfill undergraduate open elective requirements.

## Admission Standards

Students who meet the admission requirements are considered for matriculation into a degree granting graduate program. To apply, students must satisfy the following standards:

1. A bachelor's degree from a regionally accredited institution of higher learning.
2. A minimum overall GPA of 3.0 or better on a 4.0-point scale (or equivalent) in undergraduate studies is desired. (Note: Individual programs may have higher standards.)
3. Demonstrated potential for the desired field of graduate study.

## Meeting minimum admission standards does not guarantee admission.

If admitted, successful candidates should plan to meet with their adviser to review the program requirements for graduation.

## Conditional Admission

Students who do not meet all admissions requirements may be granted a conditional admission on a case-by-case basis.

## Non-Degree Study

Some applicants may be offered an opportunity to take up to two courses as a non-degree student if they are not able to complete their entire application on time. Upon completion of these
two courses, the applicant must complete the process to be admitted to the graduate program and continue taking courses.

## Transfer of Credit and Challenge Policy

Graduate course credit completed with a grade of B or better at other accredited institutions may be transferred into a graduate program at Quinnipiac. The normal limit for transfer credits is 9 credits, though additional transfer credits may be considered on an individual basis. Requests for transfer of credit must be submitted to the appropriate graduate program director along with official transcripts from the institution(s) where the credits were earned. Ordinarily, transfer of credit is granted for courses demonstrated to be similar in content, level of instruction and objectives to courses within a student's graduate curriculum at Quinnipiac.

The cardiovascular perfusion, physician assistant and pathologists' assistant programs do not accept transfer credits and do not accept applications for challenge examinations. The master of arts in teaching program may accept up to 6 credits.

The MBA program accepts up to 9 credits. The MS in information technology accepts up to 6 credits. The MS in organizational leadership accepts up to 3 credits.

Graduate level courses taken to complete a degree program at Quinnipiac may be applied to a second graduate degree. These courses must be part of the approved curriculum of the second degree. Further, a minimum of 15 credits of additional course work must be completed before the conferral of a second degree.

In individual graduate programs, students with documented graduate level training or experience may petition to earn credit through challenge examinations. Applications for challenge examinations are submitted to the appropriate graduate program director. The application must include a detailed description and documentation of the nature and scope of the student's training together with specific reference to the content of the graduate course(s) the student wishes to challenge. Applications for challenge exams are evaluated by the normal instructor of the course(s) and are reviewed by the appropriate academic dean. If the application is approved, an examination is prepared and administered by the course instructor. The examination may be taken
only once and if successfully completed, it becomes part of the student's permanent file and credit for the graduate course(s) is awarded. Challenge exams are not permitted in the MBA, MS in public relations, MS in information technology or MS in organizational leadership. Note: There is a fee for challenge exams.

## Graduate Financial Assistance and Scholarship Information

## Graduate Financial Assistance

Financing a graduate education is a significant investment for students. To assist students, Quinnipiac provides several financial aid programs to help graduate students fund their education. Financial aid is available to both full-time and part-time students. Graduate students who are matriculated, enrolled at least half-time (5-8 credits) and making satisfactory academic progress in a degree programs are eligible to receive financial aid.

## Graduate Assistantships

Graduate assistantships are available on a limited basis to both full-time and part-time graduate students. There are two types of assistantships. Students whose services and skills are utilized in practical, clinical or research within the University receive a partial tuition waiver. Students whose services are in administrative areas within the University receive a paycheck.

The number of graduate assistantships vary each semester. Students who wish to be considered for an assistantship should contact either the program director or visit www.quinnipiac.edu/gradwork.

## Internship Waivers and Clinical Affiliations

 Internship Waivers: Students accepted full time into the master of arts in teaching program have the opportunity to serve as graduate student interns in a single public school. Interns receive a tuition reduction during the internship semesters.Clinical Affiliations: Students accepted into certain health science programs will receive a reduced tuition charge during their required clinical affiliations.

## Quinnipiac University Graduate Merit Scholarship

Quinnipiac University's graduate merit scholarships are awarded on a competitive basis to a select number of newly admitted full-time on-campus graduate students who demonstrate exceptional promise of achieving academic excellence. The scholarships are offered to full-time students who are entering the following traditional on-campus programs: physician assistant, pathologists' assistant, radiologist assistant, cardiovascular perfusion, molecular and cell biology, medical laboratory sciences, nursing, journalism and business administration. Candidates are evaluated based on academic potential in their chosen graduate degree field, as evidenced by academic and related performance to date. Eligibility is determined by a scholarship committee based on the program director's recommendations during the admissions application process. Financial need is not a factor in the selection.

Candidates interested in merit scholarships are encouraged to apply early in the admissions application process. Every admitted full-time applicant is considered for the scholarship and recipients are determined no later than March 15 for programs that begin in the summer. Scholarship recipients for programs that begin in the fall are determined no later then July 15. Due to limited funding, these scholarships are not available to international students.

Scholarships are renewable so long as students maintain full-time enrollment and a cumulative grade point average of 3.25 each semester.

## Graduate Assistance Program Grant

The University also offers a limited number of institutional grants. Incoming full-time students are automatically considered for this grant, which is a one-time award of a designated amount with respect to financial need as demonstrated by the FAFSA.

## Loan Programs

Graduate students may be eligible for several different types of loan programs offered at the University. Federal loans are available to students who: a) meet the general requirements; b) are U.S. citizens or eligible non-citizens; and c) are registered with Selective Service (male students only). Private alternative loans also are available and do not require the same criteria as listed above. These types of loans are based on enrollment and an individual's personal credit standings.

## Applyingfor Financial Aid

Students seeking financial aid should complete, as soon as possible, a "Free Application for Federal Student Aid." This may be completed online at www.fafsa.gov. Be sure to indicate the federal school code 001402. In addition, a financial aid application is required to award student aid. The form can be downloaded from the "Graduate Financial Aid" section of Quinnipiac's website.

## Use of Graduate Credits to Meet the Requirements of an Undergraduate and a Graduate Degree Program

With the permission of the office of the school/college dean(s), up to 9 graduate credits may be used to fulfill undergraduate degree requirements. These credits may be applied to meet the requirements of a subsequent graduate degree program if they are a part of the approved curriculum of the graduate program. However, a minimum of 24 graduate credits must be taken after the conferral of the undergraduate degree, to earn a graduate degree. Students also must meet all of the curriculum and graduation requirements of their individual graduate degree program.

## Requirements for Graduation

## For the Master of Arts in Teaching Program

1. Satisfactory completion of all MAT program requirements.
2. Satisfactory completion of the Connecticut State Department of Education's certification requirement of demonstrated competence in language arts, mathematics, natural sciences, social sciences (including a U.S. history course), the fine arts, physical education and health, a world language, and computer and other technology.
3. Satisfactory results on the appropriate PRAXIS II and CT Foundation of Reading tests.
4. A cumulative GPA of at least 3.0.

## For the Master of Business Administration

1. Satisfactory completion of all MBA program requirements. ( 46 credits).
2. A cumulative GPA of at least 3.0.
3. A minimum grade of C in all MBA program courses taken at Quinnipiac.

For the Master of Health Science in Medical Laboratory Sciences, Pathologists' Assistant and Physician Assistant

1. Satisfactory completion of the curriculum requirements for the selected graduate program
2. Satisfactory completion of specific course requirements.
3. A cumulative GPA of at least 3.0.

## For the Master of Health Science in

## Radiologist Assistant

1. Satisfactory completion of American Registry of Radiologic Technologists and program requirements.

## For the Master of Science in <br> Information Technology

1. Satisfactory completion of all MS in information technology program requirements (36 credits).
2. A cumulative GPA of at least 3.0.
3. A minimum grade of C in all MS program courses taken at Quinnipiac.

## For the Master of Science in

Interactive Media

1. Satisfactory completion of 36 credits of graduate study.
2. A cumulative GPA of at least 3.0.

## For the Master of Science in Journalism

1. Satisfactory completion of 36 credits of graduate study.
2. A cumulative GPA of at least 3.0

## For the Master of Science in Molecular and Cell Biology

1. Satisfactory completion of at least 34 credits of graduate study.
2. Satisfactory completion of specific course requirements.
3. A cumulative GPA of at least 3.0.

## For the Doctor of Nursing Practice

1. Satisfactory completion of all core courses and appropriate specialty courses.
2. A cumulative GPA of at least 3.0.
3. Satisfactory completion of the precepted practice hour requirement.

## For the Post-Professional Master of Science in Occupational Therapy

1. Satisfactory completion of all MS in occupational therapy program requirements (32 credits).
2. A cumulative GPA of at least 3.2.

## For the Master of Science in

 Organizational Leadership1. Satisfactory completion of all MS in organizational leadership program requirements (33 credits).
2. A cumulative GPA of at least 3.0.
3. A minimum grade of C in all MS program courses taken at Quinnipiac.

## For the Master of Science in Public Relations

1. Satisfactory completion of 36 credits of graduate study, including a research thesis or professional project.
2. A cumulative GPA of at least 3.0.

## For the Master of Science in <br> Teacher Leadership

1. Satisfactory completion of all MS in teacher leadership program requirements ( 30 credits).
2. A cumulative GPA of at least 3.0.

## For the Sixth-Year Diploma in Educational Leadership

1. Satisfactory completion of all program course work, including the internship.
2. Satisfactory results (passing) on the Connecticut Administrator test (CAT).
3. Successful completion of all performance tasks.


## Graduate Academic Policies

## Academic Achievement and Graduation Requirements

All graduate students are expected to maintain a GPA of at least 3.0 on a 4.0 scale. Full-time graduate students are required to achieve a 3.0 GPA each semester. Part-time graduate students must have an overall GPA of 3.0 upon the completion of 9 credits and must maintain a cumulative GPA of 3.0 thereafter.

Individual programs may have additional achievement requirements. For example, a program may require students to achieve a grade of B or better (or pass in a pass/fail format) in key specified courses. Alternatively, a program may limit the number of courses in which a student is permitted to receive a grade of B- or less. Individual programs also may require that full-time graduate students complete a minimal number of credits per semester to retain full-time status within the program.

At the end of each semester, the academic dean provides each program director a list of students who do not meet academic achievement requirements. Utilizing the review process established by his or her program's faculty committee, the graduate program director prepares and forwards to the academic dean the program's decision regarding each deficient student. Deficient students are notified by the academic dean of a decision on their status. Deficient students may be: a) placed on probation, b) suspended or c) dismissed. Students placed on probation remain in their program but must meet specified performance standards. Suspended students may apply for readmission into their program after the term of their suspension has expired. Dismissed students may not apply for readmission.

Dismissed or suspended students may appeal the sanctions placed on them by their program to the academic dean. Appeals must be submitted in writing within 10 days of the receipt of a suspension or dismissed notice. Appeals should be based on errors in the facts considered by their program or extenuating circumstances. Upon hearing the appeal the academic dean may decide:

1. To concur with the program's initial decision.

In this case the initial decision is final.
2. To send the matter back to be reconsidered by the program.
3. To change the sanctions decided by the program by decreasing or increasing the sanctions.

To be eligible for graduation, all students must satisfy the following requirements:

1. Meet all conditions of admission.
2. Achieve a cumulative GPA of 3.0.
3. Meet all program academic achievement requirements.
4. File an application for graduation.

## Variant Procedure Policy

All Quinnipiac University and program specific graduate policies are designed to maintain the standards and quality of graduate studies. Graduate students and faculty are bound by the policies outlined in this catalog. However, individual circumstances may warrant a student to petition to be exempted or granted a variance from a particular policy. This petition should be stated briefly on a variant procedure form by the student. It is strongly recommended that the variant form be accompanied by a letter of explanation and supportive documentation.

The variant procedure form must be examined in turn by the program director, academic dean and the vice president for academic affairs.

## Graduate Student Council

The Quinnipiac Graduate Student Council is comprised of concerned students whose purpose is to serve as the united governing body for all graduate students at Quinnipiac. Specifically, the organization acts as the medium for expression for graduate student concerns and serves as the official voice of the graduate student population. The Graduate Student Council also has the authority to organize, sponsor and promote activities or events deemed to further the objectives of Quinnipiac's graduate student body. For more information, please contact graduatestudentcouncil@quinnipiac.edu.

## Background Checks

Students should be aware that certain clinical sites or internship locations may require a criminal background check before a student is placed in the clinic or intern site. The University has procedures to assist students in obtaining such a background check. The cost of the background check is the responsibility of each individual student.

## Graduate Academic Honors

## Academic Awards

Faculty Award for Academic Excellence

These awards recognize the outstanding achievement of the student who has maintained the highest GPA in his or her program of study, and who has distinguished him/herself by a superior academic project and/or contribution to the program, as determined by the faculty.
Master of Business Administration
Master of Science in Information Technology
Master of Science in Interactive Media
Master of Science in Journalism
Master of Science in Organizational Leadership
Master of Science in Public Relations

## Academic Excellence Awards

These awards recognize the outstanding academic achievement of graduate students who have completed their programs of study. In the opinion of the program directors, these graduates have excelled in both the didactic and clinical/laboratory phases of their postbachelor's degree education.
Master of Health Science/Medical Laboratory Sciences
Master of Health Science/Pathologists' Assistant
Master of Health Science/Physician Assistant
Master of Health Science/Radiologist Assistant
Master of Science in Molecular and Cell Biology
Doctor of Nursing Practice
Master of Science in Occupational Therapy
(post-professional)

## Beta Gamma Sigma

Beta Gamma Sigma is the National Business Honor Society. Only schools of business that are accredited by the Association to Advance Collegiate Schools of Business (AACSB) may have a chapter of this society. Membership is by invitation only and invitees must meet the criteria established by Beta Gamma Sigma.

## Excellence in Occupational Therapy Award

The Department of Occupational Therapy presents an award to a graduate student who has exhibited outstanding scholarship in academics and fieldwork and who has contributed significantly to the program and to Quinnipiac.

## Excellence in Scholarship and Leadership Award, Education

This award, from the faculty in the School of Education, goes to the graduate of the Sixth-Year Diploma in Educational Leadership program who has demonstrated the best combined performance in course work and during the internship.

## Excellence in Scholarship and Teaching Award, Education

The award, from the faculty in the School of Education, goes to the graduate of the program who has demonstrated the best combined performance in course work and student teaching. Two awards are granted: "one to a graduate in elementary education and one to a graduate in secondary education.

Richard K. Gershon, MD, Memorial Scholarship
This scholarship was established in 1986 in memory of Dr. Gershon, professor of immunology, biology and pathology at the Howard Hughes Medical Institute. The fund was established by his wife for graduate students enrolled in health sciences, public health and microbiology.

## Carissa M. Neubig Award

This award is given by Gaylord Hospital to a physical therapy student in his/her final year of the program. The award is given in honor of Carissa Neubig, a former graduate of the Quinnipiac physical therapy program and longtime employee of Gaylord Hospital, where she served as chief operating officer. The award gives recognition to a student who exemplifies Gaylord Hospital's five values: integrity, compassion, accountability, respect and excellence. These values are the foundation in helping Gaylord provide and achieve the dedicated caring service that has become the hallmark of its employee philosophy.

## William B. Shaffer Jr. Award

The cardiovascular perfusion program presents this award to a graduate student who exhibits outstanding performance in both academic and clinical areas of study. The individual is chosen based on high moral character, leadership qualities and a significant contribution to both the program and to Quinnipiac University.

## Sigma Theta Tau International Honor Society of Nursing

Tau Rho is the Quinnipiac University chapter of Sigma Theta Tau International Honor Society of Nursing. This global community of nurses seeks to improve the health of the world's people by increasing the scientific basis of nursing practice. The organization provides leadership and scholarship in practice, education and research. Membership is by invitation to graduate nursing students who demonstrate academic excellence.

## Mark F. Tantorski Memorial Award

In memory of Mark F. Tantorski, a 1980 graduate of the physical therapy program, an award is made to a sixthyear student majoring in physical therapy who has exhibited academic excellence, high moral character and leadership qualities and, through extracurricular activities in the area of physical therapy, has added to his or her professional growth.

## Tutorial Study

Quinnipiac University makes every effort to schedule courses so graduate students can complete their curriculum in a convenient period of time. Occasionally, a student may need to take a course not scheduled during a particular semester to complete a program or meet a professional requirement. In such cases, students may request to take a course on an individual, tutorial basis. Courses taught on a tutorial basis may not have regularly scheduled class times. However, tutorial courses have the same academic standards and performance requirements of regularly scheduled courses. Applications for tutorial courses ("Individual Study Form") can be obtained from the program director, who will refer the student to the proper faculty member. The application with the instructor's signature must be filed before the first day of classes together with a registration form.

## Undergraduate Students in Graduate Courses

Advanced undergraduate students who lack a bachelor's degree may take graduate courses in some programs as part of their undergraduate curriculum. Graduate courses are taught at an advanced level and no special consideration is made for undergraduate students who have enrolled in graduate classes on a space available basis. In individual graduate programs, graduate credits taken by an undergraduate may be used to fulfill curricular requirements of a subsequent master's degree. However, a minimum of 30 additional graduate credits beyond those counted toward the bachelor's degree must be completed to obtain a master's degree. Only 9 credits may be used to satisfy the requirements of both the undergraduate and the graduate degrees.

# College of Arts and Sciences 

## Master of Science

Master of Science in Molecular and Cell Biology MS Program Combined BS/MS

## Master of Science in Molecular and Cell Biology

The College of Arts and Sciences offers a master's degree program in molecular and cell biology to both part-time and full-time students. Through the graduate program, the mission of the Department of Biological Sciences is to prepare students for employment in research fields available in pharmaceutical companies, universities and hospitals as well as to provide an excellent foundation for students intending to pursue studies in professional health care fields and doctoral programs. To achieve this goal, the program provides the students with highly specialized lecture and laboratory courses relevant in this rapidly growing field.

In addition to comprehensive training in advanced biochemistry, molecular genetics, cell biology and laboratory methods, electives cover a wide range of specialties such as virology, microbiology, immunology, oncology and molecular pathology. The program supplements Quinnipiac University's faculty expertise with scientists from local pharmaceutical, biotechnology and medical school settings. This provides the students with the most efficient and effective educational arena to maximize their success upon completion of their studies.

Students are provided with a choice of thesis options. Each student selecting the thesis option then carries out original laboratory research either in a faculty laboratory or an industrial/hospital research laboratory. Students who choose the nonthesis option must take additional course work and a written comprehensive examination to test their knowledge of core curricula.

## Admission

Students who have a bachelor's degree in a biological, medical or scientific field are eligible for admission to the molecular and cell biology graduate degree program. Applications may be obtained from the Office of Graduate Admissions (see www.quinnipiac.edu/gradadmission) and are accepted during the fall, spring or summer semesters. A complete application consists of the following:

- application form and fee
- a letter of intent including a detailed autobiography of personal, professional and educational achievements
- two letters of recommendation
- official transcripts of all undergraduate and graduate work completed

Applicants must have a minimum undergraduate cumulative GPA of 2.5. Although Graduate Record Examination (GRE) scores are not required, the scores can provide another indication of a student's intellectual ability. Applicants should refer to the graduate admission requirements found in this catalog.

## MS Program of Study

The 34 credits required for the MS degree in molecular and cell biology include five courses (20 credits) in the science core, elective courses chosen in consultation with the program director and a thesis or non-thesis option (the non-thesis option requires the successful completion of a comprehensive examination; the thesis option requires two additional credits, for a total of 36 credits).

## Curriculum

Course Title Credits
Core Curriculum
BIO 515 Advanced Biochemistry 4
BIO 568 Molecular \& Cell Biology 4
BIO 571 Molecular Genetics 4
BIO 605 Molecular \& Cell Laboratories I 4
BIO 606 Molecular \& Cell Laboratories II 4
Total 20

## Thesis Option

Core Curriculum Requirements 20
BIO 650 Thesis I 4
BIO 651 Thesis II 4
BIO 688 Thesis Independent Study 2
Graduate electives 6
Total 36

## Non-Thesis Option

Core Curriculum Requirements 20
BIO 675 Comprehensive examination
2
Graduate electives
Graduate Elective Courses
BIO 500 Writing \& Science 3
BIO 560 Protein Biochemistry \& Enzymology 3
BIO 562 Bioinformatics 3
BIO 580 Animal Cell Culture 4
BIO 589 Neurophysiology 3
BIO 650 Thesis I 4
BIO 651 Thesis II 4
BIO 675 Comprehensive Exam 2
BIO 688/689 Independent Study 4
BMS 510 Biostatistics 3
BMS 517 Human Embryology 3
BMS 518 Pathophysiology 3
BMS 522 Immunology 3
BMS 526 Principles of Epidemiology 3
BMS 527 Pharmacology 3
BMS 532/532L Histology 4
BMS 533 Air, Water \& Soil Microbiology 4
BMS 534 Industrial Microbiology/Biotechnology 4
BMS 542/542L Advanced Microbiology
BMS 564 Fundamentals of Oncology
BMS 565 Leukemia
BMS 569 Antimicrobial Therapy
BMS 570 Virology
BMS 572/572L Pathogenic Microbiology
BMS 573 Mycology
BMS 574 Microbial Physiology
BMS 576 Drug Discovery \& Development
BMS 578 Cellular Basis of Neurobio. Disorders
BMS 579 Molecular Pathology
BMS 581 Receptors \& Regulatory Mechanisms
BMS 583 Forensic Pathology
BMS 595 Transplantation Immunology
BMS 596 Immunology of Infectious Diseases
PA 515 Human Physiology
PY 535 Disease Mechanisms
CHE 552 Introduction of Biochemical Toxicology
The thesis involves original laboratory research performed under the guidance of a thesis committee and the director of the molecular and cell biology program. The thesis committee evaluates a student's progress by approving the research project and subsequently advising the student whenever the need arises.

## Comprehensive Examination

The written comprehensive exam (BIO 675) is a requirement of the non-thesis option for the MS degree in molecular and cell biology. Students must demonstrate both breadth and depth of knowledge by illustrating a command of the subject matter obtained from individual courses into unified concepts, which link the student's own specialization to other fields of study. Students must meet with the program director before registering for the comprehensive exam.

## Combined BS in Biology/MS in Molecular and Cell Biology

The Department of Biological Sciences offers a combined BS/MS program in biology and molecular and cell biology to qualified undergraduates in any of the concentration curricula: molecular and cell biology or physiology and comparative biology.

The MS degree in molecular and cell biology provides an excellent foundation for students intending to pursue studies in professional health care fields and doctoral programs. It also offers a competitive edge for students wishing to pursue a career in the biotechnology and biopharmaceutical industries. A minimum cumulative undergraduate GPA of 2.5 and 70 earned credits at Quinnipiac University are required for admission to the graduate program. Students in the combined BS/MS program complete graduate-level biology courses during their senior year. A maximum of 9 credits may be used to fulfill undergraduate requirements.

A bachelor of science in biology is granted upon satisfactory completion of all the undergraduate curriculum requirements, and is mandatory for matriculation into the degreegranting graduate program.

Students applying for admission are strongly encouraged to submit their application during the first semester of their junior year. Interested students should contact the director of the molecular and cell biology graduate program for an application. Meeting the minimum admissions standards does not guarantee admission to the program.

## Program of Study

Students interested in the combined BS/MS program are required to take the following courses:
Course Title Credits

PHY 110/110L General Physics I
PHY 111/111L General Physics II
BIO 282/282L Genetics
BIO 346/346L Cell Physiology
CHE 315/315L Biochemistry
The following courses are strongly recommended in preparation for graduate study:
BIO 317/317L Developmental Biology
BMS 370/370L Microbiology
Students must work with their undergraduate advisers as well as the director of the graduate program in molecular and cell biology to ensure that the appropriate courses are taken and that the courses are applicable to both degree programs.

## Recommended Curriculum (Fourth Year)

Students in the combined BS/MS program follow the first three years of the recommended curriculum for the BS in biology (see College of Arts and Sciences: Department of Biological Sciences-Undergraduate Studies section).

During the fourth year of the program, in addition to the courses listed in the recommended curriculum for the BS in biology, students should take a minimum of two graduate courses in preparation for the MS degree in molecular and cell biology. These courses from the core curriculum (BIO 515, BIO 568, BIO 571, BIO 605, BIO 606) will substitute for the "open elective" requirements for the BS in biology.

Upon successful completion of all of the requirements for the BS degree in biology as well as the graduate admission standards for the MS in molecular and cell biology, students enter the fifth year.

## Recommended Curriculum (Fourth Year)

Graduate Core Requirement 4 Graduate Core Requirement

## Summer Study

## Graduate Core/electives

Total 6-8


Recommended Curriculum (Fifth Year)
Non-Thesis Option

Fall Semester

$$
\begin{array}{ll}
\text { Graduate Core Requirement } & 4 \\
\text { Graduate Core Requirement } & 4
\end{array}
$$

Graduate elective ..... 3-4

Total 11-12

## Spring Semester

> Graduate elective 3-4
Graduate elective ..... 3-4

BIO 675
Comprehensive exam ..... 2
Thesis Option
Fall Semester
Graduate Core Requirement ..... 4
BIO 650 Thesis I ..... 4Graduate Core Requirement4
Total 12
Spring Semester
BIO 651 Thesis II 4

## School of Business and Engineering

Master of Business Administration (MBA)<br>MBA Program*<br>MBA-CFA ${ }^{\circledR}$ Track (Chartered Financial Analyst)<br>MBA/HCM Track (Health Care Management)*<br>MBA-SCM Track (Supply Chain<br>Management)<br>Combined BA/MBA<br>Combined BS/MBA<br>JD/MBA (Juris Doctor)<br>Master of Science in Information Technology<br>MS IT Program (online only)<br>Combined BS/MS in Information Technology<br>Master of Science in Organizational Leadership<br>(online-only)<br>MS OL Program<br>Professional Focus Tracks:<br>Human Resources Leadership Track<br>Public Service/Nonprofit Leadership Track<br>Strategic Leadership Track<br>Certificates in Health Care Administration<br>Health Care Compliance<br>Long-term Care Administration

For specific information about the mission and learning goals for each of the graduate programs, please visit the University website at www.quinnipiac.edu.
*Programs marked with an asterisk also are offered online.


## Master of Business Administration

The School of Business and Engineering offers an MBA program for working professionals as well as for individuals who may not have attained significant levels of work experience. The program can be completed on a part-time or full-time basis.

The MBA program provides students with broad coverage of the various functional areas of the firm, as well as an understanding of how these fit together into a high-performing organization. Students also are acquainted with the theories, principles and strategies necessary to succeed in careers in business, government or nonprofit management.

Beyond acquiring the knowledge of course content and an understanding of the functionality of an organization, students are taught to be innovative in their approach to solving problems and making decisions. Exposure to critical ethical considerations and development of interpersonal skills as well as those in negotiation, cooperation, organizational citizenship and networking are all integral parts of the curriculum. Graduates are actionoriented and encouraged to think critically so that they can effectively and immediately apply the competencies and skills acquired in the MBA program to their organizations. Courses are offered in a traditional on-campus, classroom format as well as in a completely online format. Students may elect to complete their classes entirely on campus, entirely online or through a combination of oncampus and online delivery to best suit their personal and professional needs.

## MBA Program

## Admission

Admission to the MBA program at Quinnipiac University is competitive. Applications are considered on a rolling basis and students may apply to enter during the fall, spring or summer semesters. Applications are evaluated once all materials and fees are received by the University. A complete application consists of the following:

- application form and fee
- letter of intent
- official GMAT or GRE score report
- two letters of recommendation
- current resume
- official transcripts of all undergraduate and graduate work completed

Applications for the MBA program are accepted throughout the year for both full- and part-time study. Candidates are encouraged to submit applications as early as possible to ensure consideration for the semester desired.

## Program of Study

Course Title Credits

Required Core Courses
AC 600 Accounting for Managers 3
CIS 600 Information Systems Strategy 3
EC 600 Managerial Economics 3
FIN 600 Financial Analysis \& Decision Making 3
IB 600 Managing in a Global Economy 3
MBA 600 Strategic Business Problem Solving 3
MBA 605 Business Communications 1
MBA 610 Business Decision Analysis 3
MG 600 Business Ethics \& Legal Environment 3
MG 610 Managing People \& Organizations
MG 690 Strategic Management (capstone taken in final semester)
MK 600 Managing Customers \& Markets

## MBA Electives

All MBA students take 12 credits of electives.
MBA students may choose to take elective courses within one area, creating a concentration in a specific discipline, or may choose to take electives across multiple business disciplines, enhancing a broad interdisciplinary perspective.

Electives are available in computer information systems, finance, health care management, international business, management and marketing. Elective courses are listed by department in the graduate course descriptions section of the catalog. Internship credit is required for international students enrolled in the MBA program.

## MBA in Health Care Management Track

Quinnipiac University, as part of its long tradition of education in health sciences and health care administration, offers a master of business administration in health care management track. This track prepares students for administrative roles in the health care industry and emphasizes the training of managers who work collaboratively with highly trained professionals from a variety of clinical disciplines in all health care settings, gaining a comprehensive knowledge of business subjects that are increasingly important in the complex health care industry.

The MBA in health care management track is taught by doctoral-trained or professionally qualified faculty with extensive experience in health services. The program offers students new to the health care industry, as well as students already in the industry, the opportunity to expand their theoretical and practical knowledge of health services.

The program requires a total of 46 credits. A maximum of 6 credits may be taken as a health care industry residency or as a consulting practicum to fulfill the requirements of the health administration curriculum.

Applications are reviewed when all materials and the application fee are received by the University graduate admissions office. A complete application consists of an application form accompanied by the application fee, GMAT or GRE scores, two recommendations, a current resume and letter of intent, and transcripts of all undergraduate and graduate work.

Work experience and recommendations also are considered in the admissions process.

| Program of Study |  |  |
| :---: | :---: | :---: |
| Course | Title Cred | Credits |
| MBA Foundation \& Strategic Performance Courses |  |  |
| AC 600 | Accounting for Managers | 3 |
| CIS 600 | Information Systems Strategy | 3 |
| EC 600 | Managerial Economics | 3 |
| FIN 600 | Financial Analysis \& Decision Making | 3 |
| MBA 600 | Strategic Business Problem Solving | 3 |
| MBA 605 | Business Communications | 1 |
| MBA 610 | Business Decision Analysis | 3 |
| MG 610 | Managing People \& Organizations | 3 |
| MK 600 | Managing Customers \& Markets | 3 |
| Health Management Courses |  |  |
| HM 600 | Foundations of Health Care Management | 3 |
| HM 621 | Quality Management in Health Care Facilities | ies |
| HM 663 | Integrated Health Systems \& Managed Care | re |
| HM 664 | Financial Management in Health Care |  |
|  | Organizations | 3 |
| HM 668 | Legal Aspects of Health Care Delivery | 3 |

HM 668 Legal Aspects of Health Care Delivery 3
Elective Courses (complete 6 credits)
HM $630 \quad \begin{aligned} & \text { Corporate Compliance in the } \\ & \text { Health Care Industry }\end{aligned}$
$\begin{array}{ll}\text { HM } 669 & \begin{array}{l}\text { Organization \& Management of } \\ \text { Long-Term Care Facilities }\end{array}\end{array}$
HM 780/781 Internship I \& II 6
HM 783/784 Consulting Practicum I \& II 6
MG 603 Project Management 3
MG 641 Operations \& Supply Chain Management 3

## MBA-CFA ${ }^{\circledR}$ Track

## (Chartered Financial Analyst)

The MBA-CFA ${ }^{\circledR}$ is a specialized track within the MBA program and targets MBA students whose career choices require more extensive finance training and preparation than the traditional MBA. Students completing the track receive an MBA from Quinnipiac University. They also are prepared to sit for Level I of the Chartered Financial Analyst ${ }^{\circledR}$ Exam. The MBA-CFA ${ }^{\circledR}$ track program has the same number of credits as the MBA program. The first 28 credits of the track are the same as the MBA program. Students then take specialized concentration courses and finance electives to complete the 46 credits required for the MBA.

A student interested in the MBA-CFA ${ }^{\circledR}$ track must designate this track to their adviser prior to completing all of the Foundations for Effective Management core courses.

The MBA-CFA ${ }^{\circledR}$ track program of study is listed below.

| Program of Study |  |  |
| :---: | :---: | :---: |
| Course | Title C | Credits |
| Foundatio | for Effective Management |  |
| AC 600 | Accounting for Managers | 3 |
| EC 600 | Managerial Economics | 3 |
| FIN 600 | Financial Analysis \& Decision Making | 3 |
| IB 600 | Managing in a Global Economy | 3 |
| MBA 600 | Strategic Business Problem Solving | 3 |
| MBA 605 | Business Communications | 1 |
| MBA 610 | Business Decision Analysis | 3 |
| MG 600 | Business Ethics \& Legal Environment | 3 |
| MG 610 | Managing People \& Organizations | 3 |
| MK 600 | Managing Customers and Markets | 3 |
| Concentration Courses |  |  |
| AC 613 | Financial Statement Analysis | 3 |
| FIN 610 | Global Investment Analysis | 3 |
| FIN 612 | Fixed Income Investments | 3 |
| FIN 690 | Capstone Seminar in Investment Analysis | s |
| Electives (6 credits) |  |  |
| In addition complete 6 | to the courses listed above, students must additional credits in finance. |  |

## MBA-SCM Track (Supply Chain Management)

The MBA-SCM is a specialized track within the MBA program. Supply chain management is an approach to coordinating the functions, processes and enterprises associated with the orderfulfillment cycle. A supply chain typically extends across multiple tiers, including manufacturers and their suppliers, transportation carriers, warehouses, retailers and the customers themselves. SCM focuses on the integration across functions within a firm as well as across enterprise lines.

The MBA-SCM track has the same number of credits as the MBA program. The first 34 credits of the track are the MBA core. Students then take specialized concentration courses to complete the 46 credits required for the MBA. A student interested in the MBA-SCM track should indicate this to his/her adviser early in their program.

## Program of Study <br> Course Title <br> Required Core Courses

Credits
AC 600 Accounting for Managers 3
CIS 600 Information Systems Strategy 3
EC 600 Managerial Economics 3
FIN 600 Financial Analysis \& Decision Making 3
IB 600 Managing in a Global Economy 3
MBA 600 Strategic Business Problem Solving 3
MBA 605 Business Communications 1
MBA 610 Business Decision Analysis 3
MG 600 Business Ethics \& Legal Environment 3
MG 610 Managing People \& Organizations 3
MG 690 Strategic Management
(capstone taken in final semester) 3
MK 600 Managing Customers \& Markets 3
SCM Track Courses
MG 640 Strategic Sourcing \& Supply Management 3
MG 641 Operations \& Supply Chain Management 3
MG 642 Transportation Management 3
MK 615 Managing Marketing Channels 3

## Fast Track Combined BA/MBA

The Fast Track BA/MBA program is designed for outstanding undergraduate students outside of the School of Business and Engineering. The program enables students from a wide variety of disciplines to add a core of business knowledge to their academic portfolio. Students with appropriate
prerequisite knowledge are allowed to take courses toward an MBA during the senior year and complete their MBA in one year beyond the bachelor's degree. Interested students must apply for admission to the BA/MBA program during the last semester of the junior year using a special application form available in the School of Business and Engineering. Admission into the combined program is competitive. Only students who have earned at least 75 credits with an overall GPA of 3.0 are considered.

It is recommended that students interested in the Fast Track BA/MBA program take the following undergraduate courses or equivalents early in their undergraduate program. These will prepare students for the recommended MBA classes during their senior year.
Course Title Credits

AC 101 Financial Accounting 3
EC 111 Microeconomics
or EC 112 Macroeconomics 3
EC 271 Applied Statistical Methods (or equivalent) 3 Students in the Fast Track program may complete up to 9 credits of graduate courses during their senior year. These courses also fulfill undergraduate open electives. Students must work with their undergraduate adviser and the MBA director to ensure that the courses fit into both degree programs. Students must present satisfactory performance in their graduate course work completed during their senior year to be officially admitted into the graduate program upon completion of their BA degree. The BA/MBA curriculum consists of the MBA core courses plus MBA 660-International Business/Consulting Plan, MBA 688/MBA 689-MBA Internship I \& II, and one MBA elective.

## Fast Track Combined BS/MBA

The Fast Track BS/MBA program is designed for outstanding undergraduate School of Business and Engineering students. The program enables students to take courses toward an MBA during the senior year and complete their MBA in one year beyond the bachelor's degree. Interested students must apply for admission to the BS/MBA program during the last semester of the junior year using a special application form available in the School of Business and Engineering. Admission into the combined program is competitive. Only
students who have earned at least 75 credits with an overall GPA of 3.0 are considered.

Students in the Fast Track program may complete up to 9 credits of graduate courses during their senior year, which also fulfill undergraduate open electives. Students must work with their undergraduate adviser and the MBA director to ensure that the courses fit into both degree programs. Students must present satisfactory performance in their graduate course work completed during their senior year to be officially admitted into the graduate program upon completion of their BS degree. The BS/MBA curriculum consists of the MBA core courses plus MBA 660-International Business/Consulting Plan, MBA 688/MBA 689-MBA Internship I \& II, and one MBA elective.

## JD/MBA

Students may apply for acceptance to both the Law School and the MBA program and, upon completion of both programs, receive a business and a law degree. This specialized joint program shortens the length of time necessary to receive the degrees. Four law courses are used to fulfill the four-elective course requirement of the MBA program.

Admissions for these programs are handled separately, but a student should inform both admissions offices of an interest in this joint degree program. Students accepted into the School of Law are not required to take the GMAT or GRE.

Once accepted to both programs, a student typically completes one year of law studies and then begins taking courses from both programs concurrently, finishing both programs' requirements in the same semester. However, students who wish to complete the joint program in three years can accomplish this by starting their MBA courses in the summer before their first year in the School of Law. A student may be admitted to one program and, prior to meeting the graduation requirements for that program, apply for the joint degree program.

## Master of Science in Information Technology

## MS in Information Technology

The target audience for this degree is twofold. One group is information systems management majors who wish to continue their education in this discipline to obtain in-depth knowledge of the information technology field and to be better equipped to manage information technology projects and organizations. Another group consists of persons who are, or desire to be, employed in information systems-related areas and who wish to gain in-depth knowledge in the field to both improve their performance and productivity in their current positions and enhance career opportunities with current and/or future employers.

Applications to the MS in information technology program at Quinnipiac University are considered on a rolling basis and are not evaluated until all materials and fees are received by the University. A complete application consists of the following: an application form, application fee, two recommendations, a recent resume, a personal statement and official transcripts of all undergraduate and graduate work completed.

To be admitted to the program, an applicant must have completed an undergraduate degree program with a GPA of at least 2.7. Work experience and recommendations also are strongly considered in the admission process.

The prerequisites for the program are:

1. An undergraduate degree in a field of business, computer science or computer technology completed within the last five years or
2. Completion of the Quinnipiac courses CIS 351 and CIS 225 or their equivalent.

## Program of Study

The program consists of 36 credits at the 600 level consisting of seven required courses ( 21 credits) and five elective courses ( 15 credits).

| Seven required core courses as follows: |  |  |
| :--- | :--- | ---: |
| Course | Title | Credits |
| CIS 600 | Information Systems Strategy | 3 |
| CIS 620 | Data Management | 3 |
| CIS 630 | Business Design \& Object-oriented Analysis | 3 |
| CIS 640 | Communications \& Networking | 3 |

CIS 690 Managing Information Technology Projects \& Organizations ..... 3
CIS 691 Information Systems Capstone ..... 3
CIS 695 Enterprise Architecture ..... 3
Five elective courses chosen from the following:
CIS 625 ERP Design \& Implementation ..... 3
CIS 627 Data Warehousing \& Data Mining ..... 3
CIS 628 Business Intelligence \& Knowledge Based Systems ..... 3
CIS 642 Network Design \& Implementation ..... 3
CIS 650 Information Systems Security ..... 3
CIS 652 Advanced Topics in Information System Security ..... 3
CIS 660 Electronic Commerce Implementation ..... 3
CIS 675 Information Systems Research ..... 3
CIS 685 Emerging Information Technologies ..... 3

## Combined BS/MS in

## Information Technology

The combined BS/MS in information technology program is designed for outstanding undergraduate School of Business and Engineering students. The program enables students to start taking courses toward an MS in information technology during their senior year. Interested students must apply for admission to the BS/MS program during the last semester of their junior year.

A special application form for the combined program is available in the School of Business and Engineering. Admission into the program is competitive. Applicants must have earned at least 75 credits at Quinnipiac with an overall GPA of 3.0.

Students in the combined BS/MS program may complete up to three graduate business courses during their senior year, which also fulfill undergraduate requirements. Students work with their undergraduate adviser and the MS in information technology director to ensure that the appropriate courses are taken and fit into both degree programs.

Students are not officially admitted into the MS in information technology program until they graduate with their BS degree and meet all other program requirements.

## Master of Science in Organizational Leadership

The MS in organizational leadership program is a rigorous online program specifically designed to be highly valuable to working adult students trying to advance their careers by developing a more sophisticated understanding of leadership in their organizations. Courses are designed to foster graduate-level growth and development in six key areas of leadership:

- interpersonal and communication skills
- self-awareness and growth
- understanding, interpreting and using data to improve performance
- understanding and leading organizations and complex teams
- strategic analysis and implementation
- ethics of leadership

The program consists of 33 credits.

## Admission

In addition to an application for admission, students also must submit:

1. official transcripts of all undergraduate and graduate programs/courses completed
2. personal statement
3. resume
4. two letters of recommendation
5. application fee

## Curriculum <br> Required Courses (24 credits)

Course Title Credits
OL 601 Foundations of Organizational Leadership 3
OL 610 The Power \& Politics of Communication 3
OL 615 Leadership Across Boundaries 3
OL 630 Performance Management 3
OL 640 Project Management
OL 650 Leading Organizational Change 3
OL 662 Ethics \& Governance
OL 690 Leadership Consulting Capstone 3
Plus one professional focus track 9

## Professional Focus Tracks

Each professional focus area allows students to study a specialization within organizational leadership. This builds on the leadership foundation courses and provides expertise for those

seeking to enhance their leadership skills in a specific industry.

## Human Resource Leadership Track

Students pursuing this track complete three additional courses:
OL 681 Leadership in Human Resources 3
OL 682 Employment Law for the Non-Lawyer 3
OL 683 Employee Development Strategies for Organizational Leaders

Public Service/Nonprofit Leadership Track Students pursuing this track complete three additional courses:
OL 681 Leadership in Human Resources 3

OL 686 Leading Public Service Organizations 3
OL 687 Strategic Planning for Public Service Organizations

## Strategic Leadership Track

Students pursuing this track complete three additional courses ( 9 credits). They may select any course from either the Human Resources Leadership Track or the Public Service/Nonprofit Leadership Track or from a specified list of electives across the graduate business curriculum.

## Certificates in Health Care Administration

## Health Care Compliance

Quinnipiac University, through a program jointly developed by the School of Business and Engineering and School of Law, is certified by the Health Care Compliance Association to offer the first university-based program in the country to train health care compliance officers. Recognizing the importance of compliance officers in all areas of the health care industry and the need to raise the level of professionalism of those officers, the two schools jointly offer a six-course certificate program in health care compliance.

Quinnipiac's health care compliance certificate program provides qualified students with a sound academic foundation and the skills to successfully implement the administrative and management principles required to function as competent and knowledgeable health care compliance professionals.

Health care compliance certificate program courses cover: the principles and specifics of health care compliance, general management, legal aspects of health care compliance and financial management. Graduate courses in both the School of Business and Engineering and the School of Law make up the six-course certificate program. Students without a background in law are required to complete HM 668: Legal Aspects of Health Care Delivery as a prerequisite for the other law courses in the program.

After completing these courses, Quinnipiac University awards a health care compliance certificate, which makes students eligible to immediately take the HCCA national certifying examination.

## Required: 3 credits

Course Title
Credits
HM 630 Corporate Compliance in the Health Care Industry3

General Management: two courses ( 6 credits) required HM 621 Quality Management in Health Care Facilities 3

HM 660 Human Resource Management in Health Care Administration
MG 600 Business Ethics \& Legal Environment

| MG 603 | Project Management | 3 |
| :--- | :--- | :--- |
| MG 610 | Managing People \& Organizations | 3 |
| Law Courses: two courses ( $\mathbf{6}$ credits) required |  |  |
| HM 668 | Legal Aspects of Health Care Delivery |  |
|  | (prerequisite for non-law students) | 3 |
| LAW 345 | Law \& Medicine | 2 |
| LAW 348 | Advanced Law \& Medicine | 2 |
| LAW 352 | Health Care Business Transactions | 2 |
| LAW 542 | Regulation of Health Care Industries | 2 |
| Financial | Management: $\mathbf{3}$ credits |  |
| HM 664 | Financial Management in Health Care |  |
|  | Organizations | 3 |

## Long-term Care Administration

Individuals who wish to become licensed nursing home administrators in the state of Connecticut must pass a licensure examination offered by the Department of Public Health. To be eligible for this examination, applicants must complete either the master's degree outlined (MBA/HCM) above or a nondegree certificate of study.

The certificate course of study consists of two components: an academic course and a 900 -hour residency in a skilled nursing facility. The academic course, HM 669 Organization and Management of Long-term Care Facilities, is generally offered once a year.

The residency program is offered in a twocourse sequence-HM 790 and HM 791, each of which grants 450 hours of residency (for 4 credits each). Two restrictions apply to the residency program. First, the residency must be started within one year of the completion of the academic course. (Students may petition the Department of Public Health in writing if there is justification to begin the residency at another time.) Second, at least one half of the residency ( 450 hours) must be completed at a site where the student has had no previous financial or employment relationship. Information on this program is available in the Office of Graduate Admissions.

## School of Communications

Master of Science in Interactive Media<br>On Campus Program<br>Online Program<br>Master of Science in Journalism<br>Master of Science in Public Relations

## Master of Science in Interactive Media

The master of science program in interactive media program focuses on the principles and practices of creating content for distribution through the Internet, portable media devices and related digital platforms. The program's mission is to provide a master's level education in which students prepare to become interactive leaders, producers and managers for national and global organizations.

The program is offered fully online or as a blend of on-campus and online courses. Students may complete the program in two years, either full- or part-time, by completing six courses per calendar year. Undergraduate students may apply for the combined, five-year bachelor/master's degree program in interactive media.

Interactive media graduates can compete for a range of job opportunities as web producers, interactive content developers, digital media producers, user experience designers and social media specialists. Graduates can find careers in organizations engaged in the creation and distribution of digital content, such as corporate communication departments, schools and colleges, advertising agencies, news media companies, health-care institutions, and film and television production companies.

The program encourages applications from prospective students who want to apply skills acquired during their undergraduate education or professional careers. Students come from a diverse range of experiences such as journalism, programming, graphic design, web design/management, broadcasting, media studies and public relations.

Through a balance of courses in interactive theory, media production, interactive techniques, web design, animation and project management, students learn how to transform traditional media
and original content into multimedia productions. The combination of study in the theoretical and production aspects of interactive media encourages students to become innovative thinkers who understand the shift from legacy media to online.

The program follows a 14 -week fall/spring course semester sequence. A full selection of 12week courses is offered during the summer for part-time students who want to finish in two years. Full-time students also can take summer courses and finish in one and a half years. Fall, spring and summer starts are available.

Students also have the opportunity to enroll in an optional 3-credit internship. Graduate students have served as interns at local, national and global media companies and web development firms. Also available is an optional 3-credit independent study for students who want to do advanced work or research in a particular topic.

To earn the master's degree, students must complete 36 credits with a minimum 3.0 GPA, which includes a 3 -credit master's project or portfolio. The master's project is a professionallevel production that advances knowledge in the field. The master's portfolio is a comprehensive collection of professional-level work created during the program and presented in a website. Planning for the master's project at the outset of studies is strongly encouraged. Unique to the program is the Project Planning course requirement. The Project Planning course is essential to becoming a media producer and serves as a prequel to the master's project, allowing students to create a comprehensive master's project plan, essentially making the master's project a 6 -credit experience.

Visit the interactive media community page at quinnipiac.interactivemedia.org, which offers program information, details on projects and networking opportunities.

## Admission

The graduate programs in the School of Communications invite applications from prospective students who wish to pursue the professional practice of interactive media. Recent graduates of a bachelor's program outside of the communications field are welcome to apply, as are prospective students who are presently working and wish to either shift careers or enhance their professional standing.

Admission to each program is highly competitive and is based on the following: - undergraduate performance as measured by GPA - experience in the chosen field either as a student or professional

- two professional recommendations
- online samples of written, visual, media or interactive work
- a 500-word personal statement (see application)


## Program of Study

Note: Students who demonstrate proficiency in ICM 502, 504, 505 or 508 may take an advanced corresponding elective instead with the expressed written permission of the graduate program director.

## Required Courses ( 30 credits) Course Title <br> Credits

ICM 501 Theories of Interactive Media 3
ICM 502 Visual Design 3
ICM 504 Interactive Animation 3
ICM 505 Interactive Techniques 3
ICM 506 Writing for Interactive Media 3
ICM 508 Media Production 3
ICM 512 User Centered Design 3
ICM 552 Internet Ethics \& Policy 3
ICM 590 Project Planning 3
ICM 601 Master's Project or Portfolio or ICM 602 Thesis

## Electives (Any two)

ICM 507 Advanced Interactive Techniques
ICM 509 Advanced Media Production
ICM 513 Advanced User Centered Design
ICM 515 Advanced Interactive Animation
ICM 522 Social Media
ICM 530 Independent Study 3
ICM 531 Graduate Internship 3

## Master of Science in Journalism

The master of science in journalism prepares students for professional careers as reporters, editors and producers in broadcast, print and online media. Through systematic training in both beginning and advanced reportorial practices and technologies, students learn how to write news, shoot and edit video, create audio reports and assemble multimedia stories.

Our alumni are pursing careers as reporters and producers in many major broadcast television markets, for the Associated Press, for ESPN and Fox News Channel, and for numerous online news sites, newspapers and magazines including patch.com. The journalism program welcomes qualified students who do not have journalism experience and encourages prospective students with some experience who wish to upgrade or polish existing skills to apply and ultimately join our network of highly successful alumni.

To earn the master's degree, students must complete 36 credits with a minimum 3.0 GPA. It is possible to complete the program in one calendar year. Students admitted to the program may enroll for full-time (three or more courses per semester) or part-time study. A 3-credit capstone masterwork experience is required. Students can meet this requirement in the form of a master's project such as an investigative magazine piece or a thesis that advances knowledge of the field.

Quinnipiac University's journalism professors and instructors have served as staff reporters, editors and producers with decades of experience at the highest levels of news gathering. Guest speakers drawn from leading news organizations such as the Associated Press appear frequently to address classes on specific developments and issues in news coverage.

In addition to classes, students may enroll in a 3-credit internship as an elective to acquire professional experience while still attending school. Students have completed internships at CNBC, ESPN, Fox News Channel, The Hartford Courant, New Haven Register and National Geographic, at network affiliate broadcast stations throughout the U.S. and at emerging media companies such as patch.com, among many others. The program maintains close ties with traditional and emerging news organizations and routinely posts career opportunities for students to pursue.

All journalism graduate students have access to the school's news technology production facilities within the fully staffed Ed McMahon Mass Communications Center. The center features a high-definition television studio, access to video and audio production gear for covering stories, and digital editing suites. Most classes are held at the center, giving students first-hand, in-class experience in a professional environment.

## Admission

The graduate programs in the School of Communications invite applications from prospective students who wish to pursue the professional practice of journalism. Recent graduates of a bachelor's program outside of the communications or journalism fields are welcome to apply, as are prospective students who are presently working and wish to either shift careers or enhance their professional standing.

Admission to each program is highly competitive and is based on the following:

- undergraduate performance as measured by GPA
- experience in the chosen field either as a student or professional
- two professional recommendations
- a portfolio of written, visual or audio work
- a 500-word personal statement (see application)


## Program of Study

Note: Students who demonstrate proficiency in any required course or courses may take electives instead with the expressed written permission of the graduate program director.

## Required Courses ( 30 credits)

Course Title Credits

JRN 502 The Practice of Journalism 3
JRN 503 Analytics for News Reporting 3
JRN 504 Reporting 3
JRN 521 Audio Storytelling 3
JRN 524 Broadcast Journalism 3
JRN 534 Story in Journalism
JRN 538 Reporting for the Web
JRN 539 History of Journalism
JRN 552 Media Law 3
JRN 601 Master's Project
or JRN 602 Thesis
Electives (any two)
JRN 525 Media Management
JRN 526 Editing for Print
JRN 527 Covering Government \& Politics
JRN 530 Independent Study 3
JRN 531 Graduate Internship 3
JRN 532 Advanced Broadcast Journalism 3
JRN 533 Advanced Print Reporting 3
JRN 536 Opinion Journalism 3
JRN 540 Broadcast Performance 3
JRN 542 Graduate Seminar 3
Please note: electives are offered on an as-needed basis and some may not be offered during a given academic cycle.

## Master of Science in Public Relations

The master of science in public relations program offers students the opportunity to pursue an advanced degree in a highly competitive and growing field. The program is designed for early- to mid-career professionals interested in advancing their careers in public relations and/or transitioning into public relations from complementary fields such as (but not limited to) finance, law, health care, technology, human resources, journalism and marketing. The program helps recent graduates with bachelor's degrees in public relations and other disciplines gain a competitive edge as they enter the workforce.

Graduates of the program are qualified to work as public relations specialists in both the public sector and private sector with expertise and skills applicable to corporate, nonprofit and government institutions. Students study the conceptual and theoretical foundations of public relations, learn how to conduct and analyze public relations research and evaluation, and hone their skills in contemporary public relations practices and techniques. The program stresses professional competence, global consciousness and professional and social responsibility.

## Admission

New students are admitted only in the fall term.
Applications are accepted on a rolling basis.
Admission is competitive and based on the following application requirements:

- application form and fee
- resume
- two letters of reference (preferably from individuals familiar with the applicant's academic potential)
- official undergraduate and graduate transcripts from all institutions attended
- responses to questions regarding the applicant's interest in and potential for graduate study in public relations (see application packet)
- professional portfolio (e.g., writing samples that demonstrate the applicant's ability to communicate effectively with diverse audiences)
- Graduate Record Exam scores (Note: the GRE requirement may be waived at the discretion of the program director for applicants holding a graduate degree from an accredited institution and/or documented professional accomplishments in their field)
- minimum 3.0 undergraduate GPA


## Program of Study

Students attending full-time can complete the 36 -credit program in one calendar year. They take 15 credits in the fall and spring terms, respectively, and complete a 6 -credit research thesis or professional project during the summer or subsequent terms. Students also may elect to complete the program on a part-time basis in the evening.

## Course Title <br> Credits

## Core requirements (21 credits)

PRR 501 Principles and Theories of Public Relations
PRR 502 Public Relations Research Methods 3
PRR 503 Public Relations Research Design 3
PRR 504 Law \& Ethics in Public Relations 3
PRR 505 Public Relations Writing 3
PRR 506 Public Relations Management 3
PRR 507 Strategic Planning in Public Relations 3
Public relations elective requirements ( 6 credits)
Two courses from the following:
ICM 501 Theories of Interactive Media 3
ICM 506 Writing for Interactive Media 3
PRR 510 Crisis Management 3
PRR 511 International Public Relations 3
PRR 512 Investor Relations 3
PRR 513 Issues Management in Health Care 3
PRR 514 Public Relations \& New Media 3
PRR 515 Special Topics in Public Relations 3
PRR 531 Graduate Internship in Public Relations 3
PRR 606 Independent Study

## Free elective (3 credits)

Public relations elective (from list above)
or outside elective approved by adviser
Capstone requirement ( 6 credits)
PRR 601 Professional project
or PRR 602 Research thesis
Total requirements

## School of Education

Five-Year BA/MAT Programs in Elementary and
Secondary Education
Five-Year BA/MAT Program in
Elementary Education
Five-Year BA/MAT Program in Secondary
Education
Five-Semester MAT Programs in
Elementary and Secondary Education
Five-Semester MAT Program in
Elementary Education
Five-Semester MAT Program in Secondary
Education
MS in Teacher Leadership (online-only program) Sixth-Year Diploma in Educational Leadership

## Master of Arts in Teaching

## Five-Year BA/MAT Programs in Elementary and Secondary <br> Education

The purpose of Quinnipiac's five-year BA/MAT program is to prepare graduates with perspectives, knowledge and skills to become master educators. The School of Education recognizes that the concept of educator is three-dimensional, and that successful educators must be teachers, learners and leaders. Therefore, graduates of the master of arts in teaching program are teachers who lead all students to learn, learners who continue to learn as they continue to teach, and leaders who influence the culture of their schools in ways that support best practices in teaching and learning.

The program reflects the spirit and mission of Quinnipiac University with close attention to the teaching standards for the state of Connecticut and to the standards of the National Council for the Accreditation of Teacher Education The three values of "excellence in education, a sensitivity to students, and a spirit of community" which are at the heart of Quinnipiac's mission statement are woven through the program.

## General Information

The five-year BA/MAT program offers Quinnipiac students a bachelor's degree in an academic major and a master of arts in teaching degree leading to certification through the Connecticut State Department of Education. Consistent with the University's mission, arts and sciences studies are integrated with professional studies to prepare graduates who have depth and breadth of content knowledge and strong pedagogical skills.

The five-year program is divided into a two-year preprofessional component and a three-year professional component. Students begin their professional component in the fall semester of their junior year. Supervised fieldwork, an integral part of the professional component, includes undergraduate observation and fieldwork, a graduate internship, and student teaching. Following completion of the fourth year of study, students receive a bachelor of arts or bachelor of science degree in their academic major. The summer semester immediately following graduation, students begin their graduate study.

The School of Education is fully accredited by the National Council for Accreditation of Teacher Education (NCATE). The U.S. Department of Education recognizes NCATE as a specialized accrediting body for schools, colleges and departments of education.

Note: Because the MAT program is subject to state review on a regular basis, prospective and current students are advised to see the School of Education for up-to-date program information.

## Admission

Admission to the five-year BA/MAT program is based on a holistic review by MAT program faculty of the following admission requirements:

1. a preferred 3.0 minimum overall undergraduate GPA (from all colleges and universities attended) for 45 credits of course work with a subject area major or appropriate interdisciplinary major (applicants with overall GPAs below 2.67 will not be considered);
2. a passing score on the PRAXIS I test (PPSTs) or a PRAXIS I waiver;
3. at least two written recommendations from individuals who have recent knowledge (within the last two years) of the applicant's suitability as a prospective educator, including one from a college instructor;
4. a written essay completed on-site that meets program standards;
5. a formal interview during which the applicant is expected to demonstrate: an ability to communicate clearly; a demeanor appropriate to the teaching profession; and a maturity and attitude necessary to meet the demands of the MAT program;
6. Effective July 1, 2010, Connecticut law requires all teacher candidates to undergo a criminal background check prior to being placed in a public school setting for field study, internship and student teaching. Because a clinical experience is an integral part of each semester, failure to abide by this law will make an applicant ineligible for admission to the program. The School of Education has procedures in place to assist candidates in obtaining the background check. The cost of the background check is the responsibility of the teacher candidate.

## Retention

Teacher candidates in the MAT program at Quinnipiac are expected to demonstrate the professional behaviors and dispositions articulated in both the School of Education's Professional Attributes and Dispositions document and the CT Code of Professional Responsibility for Teachers. Candidates must maintain an overall B- (2.67) undergraduate GPA with a C or better in all general education courses required for the MAT program. In addition, candidates must earn a B- or better in all education courses (undergraduate and graduate), as well as maintain 3.0 GPA for all education course work to remain in good standing in the program. A grade of $\mathrm{C}+$ or below in any education course (including the graduate content area courses) requires the candidate to retake the course at his/her expense and earn the minimum B- grade.

If the candidate, once formally accepted into the MAT program, fails to maintain the minimum GPA, that candidate may be allowed to remain in the program for a single semester on probationary status. If a candidate on probation fails to meet the minimum GPA by the end of the single probationary semester, that candidate is dismissed from the program. Granting of probationary status is subject to the director's approval and is neither automatic nor guaranteed.

Candidates in the secondary program must maintain a minimum 3.0 GPA in all content area course
work to remain in good standing in the program and be recommended for certification. In addition, secondary teacher candidates who earn a C+ or below in two or more undergraduate content area courses will be required to meet with the MAT program director to discuss continuation in the program.

Candidates failing to meet professional standards in the program may be subject to suspension or dismissal. In addition, candidates who exhibit a lack of effort or enthusiasm in the program, or who reveal interpersonal skills unsuited or inappropriate for teaching, will be required to meet with the MAT program director to discuss continuation in the program.

## Completion

To qualify for teacher certification, students must complete all requirements of the MAT program. Candidates must complete all course work, fulfill the internship responsibilities and successfully complete all performance tasks.

## Clinical Experiences

## Field Study

Candidates are required to complete a field study course in each semester of their junior and senior year. As part of the course requirements, each candidate must complete a minimum of 20 hours per semester in her/his assigned classroom, under the guidance of the classroom teacher who serves as the field study adviser. Candidates are assigned to one school during their junior year and a different school during their senior year.

## Internship

Candidates participate in an internship during their graduate year. Quinnipiac has developed collaborative partnerships with school districts throughout central and southern Connecticut to provide graduate students with guided, hands-on professional practice and to defray some costs of the graduate portion of the program.

During the internship semesters, candidates serve in area schools in a variety of capacities and as substitute teachers with guidance from an onsite teacher advisor and a School of Education faculty member. Candidates have the opportunity to participate in staff meetings and take part in all school operations; in short, to become full members of the school community.

Candidates must continue serving in their internship through the last day of the public school calendar. Therefore, although classes end in May, the internship and the completion of the five-year MAT program do not occur until mid- to late June. Candidates are allowed to "walk" during graduation ceremonies but do not formally receive their degrees until all of the internship responsibilities are met.

Note: Beginning in the fall semester of junior year, teacher candidates complete a clinical component of their program of study in $\mathrm{K}-12$ public schools. Candidates are responsible for their transportation to and from these clinical sites.

## BA/MAT Five-Year Program in Elementary Education

The elementary education program is designed to prepare teacher candidates with in-depth content knowledge across the elementary school curriculum and exemplary skills in teaching and classroom management. Students interested in elementary education may major in any discipline or have a transdisciplinary major.

Central to candidates' professional studies are undergraduate service-based courses (ED 301, ED 302, ED 401, ED 402) in which candidates gain 80 hours of hands-on experience, and the full-year graduate internship/student teaching experience in partner schools.

## Program of Study

## General Requirements

The following courses meet the Connecticut State Department of Education's general education requirements. A grade of "C" or better is required in these courses.

- English 101
- English 102
- English at 200 level or higher ${ }^{1}$
- History 131 or History 132
- Math 110 or higher ${ }^{2}$
- World Language-Level $101^{3}$
- World Language-Level $102^{4}$
- Psychology 101
- Psychology 236
- Psychology 358
- Fine Arts-6 credits
- Science-7-8 credits
- Physical Education-1 credit

| Professional Component |  |
| :---: | :---: |
| Course | Title Credits |
| ED 301 | Elementary Field Study I |
| ED 302 | Elementary Field Study II |
| ED 315 | Diversity, Dispositions \& Multiculturalism |
| ED 320 | Social \& Philosophical Foundations of Education |
| ED 401 | Elementary Field Study III |
| ED 402 | Elementary Field Study IV |
| ED 436 | Teaching Literacy in the Primary Grades |
| ED 440 | Learning \& Teaching in the Elementary Classroom |
| ED 441 | The Design \& Management of the Elementary Classroom |
| ED 468 | Teaching Mathematics in the Primary Grades |
| ED 550 | Issues \& Research in Education |
| ED 552 | Teaching in the Inclusive Classroom |
| ED 554 | Internship \& Seminar I |
| ED 555 | Internship \& Seminar II |
| ED 556 | Teaching Literacy in Grades 4-6 |
| ED 558 |  |
|  | Pedagogy |
| ED 562 | Facilitating the Arts in the Classroom |
| ED 566 | Elementary School Social Studies: |
|  | Content \& Pedagogy 2 |
| ED 569 | Teaching Mathematics in Grades 4-6 3 |
| ED 575 | Teacher Discourse: Language \& Communication |
|  | Issues in the Elementary Classroom 3 |
| ED 601 | Student Teaching \& Seminar 6 |
| ED 693 | Research I |
| ED 694 | Research II |
| 1. English majors must take EN 325 |  |
| 2. required even if student tests out of MA 110 and places in a higher math course <br> 3. or test out 4. or test out |  |

## BA/MAT Five-Year Program in Secondary Education

The secondary education program is designed to prepare the teacher candidate with strong teaching skills and a depth of content knowledge in the discipline they wish to teach. Students interested in secondary education must select a major from among the following: biology, English, history, mathematics, political science, sociology or Spanish. Biology majors are strongly encouraged to follow the Physiology and Comparative Biology concentration within the biology major to be eligible for secondary certification.

Central to candidates' professional studies are undergraduate service-based courses (ED 310,

ED 311, ED 412, ED 413) in which candidates gain 80 hours of hands-on experience, and the full-year graduate internship/student teaching experience in partner schools.

## Program of Study General Requirements

The following courses meet both the University Curriculum requirements and the Connecticut State Department of Education's general education requirements. A grade of "C" or better is required in these courses.

- English 101
- English 102
- English at 200 level or higher ${ }^{1}$
- History 131 or History 132
- Math 110 or higher2
- World Language-Level $101^{3}$
- World Language-Level $102^{4}$
- Psychology 101
- Psychology 236
- Social Sciences-3 credits
- Fine Arts- 3 credits
- Science-7-8 credits
- Physical Education-1 credit


## Professional Component Secondary

Course Title Credits

ED 310 Field Study I 3
ED 311 Field Study II 3
ED 325 Diversity in the Classroom 3
ED 408 Classroom Environment 3
ED 412 Field Study III 3
ED 413 Field Study IV 3
ED 421 Social \& Philosophical Foundations of Education3
ED 482 Special Education ..... 3
ED 50_ Methods II ..... 3
ED 509 Reading \& Writing Across the Curriculum ..... 3
ED 514 Internship \& Seminar I ..... 1
ED 515 Internship \& Seminar II ..... 3
ED 524 Methods I ..... 3
ED 550 Issues \& Research in Education ..... 3
ED 588 Teaching in the Middle Grades ..... 2
ED 601 Student Teaching \& Seminar ..... 6
ED 693 Research I ..... 1
ED 694 Research II ..... 2

Plus 3 graduate content discipline courses

1. English majors must take EN 325
2. required even if student tests out of MA 110 and places in a higher math course
3. or test out 4. or test out

## Five-Semester MAT Programs in Elementary and Secondary Education

The purpose of Quinnipiac's five-semester master of arts in teaching program is to prepare graduates with perspectives, knowledge and skills to become master educators. The School of Education recognizes that the concept of educator is three-dimensional, and that successful educators must be teachers, learners and leaders. Therefore, graduates of the master of arts in teaching program are teachers who lead all students to learn, learners who continue to learn as they continue to teach, and leaders who influence the culture of their schools in ways that support best practices in teaching and learning.

The program reflects the spirit and mission of Quinnipiac with close attention to the teaching standards for the state of Connecticut and to the standards of the National Council for the Accreditation of Teacher Education (NCATE). The three values of "excellence in education, a sensitivity to students, and a spirit of community," which are the heart of Quinnipiac's mission statement, are woven throughout the program.

## General Information

The five-semester MAT program offers Quinnipiac teacher candidates a master of arts in teaching degree leading to certification through the Connecticut State Department of Education. Consistent with the University's mission, arts and sciences studies are integrated with professional studies to prepare graduates who have depth and breadth of content knowledge and strong pedagogical skills. The School of Education is fully accredited by the National Council for Accreditation of Teacher Education (NCATE). The U.S. Department of Education recognizes NCATE as a specialized accrediting body for schools, colleges and departments of education.

Note: Because the education program is subject to state review on a regular basis, prospective and current students are advised to see the School of Education for up-to-date program information.

## Admission

Admission to the five-semester MAT program is based on a holistic review by MAT program faculty of the following admission requirements: 1) a preferred 3.0 minimum overall undergraduate

GPA (from all colleges and universities attended) with a subject area major or appropriate interdisciplinary major (applicants with overall GPAs below 2.67 will not be considered);
2) a passing score on the PRAXIS I test (PPSTs) or a PRAXIS I waiver;
3) at least two written recommendations from individuals who have recent knowledge (within the last two years) of the applicant's suitability as a prospective educator;
4) a written essay completed on-site that meets program standards;
5) a formal interview during which the applicant is expected to demonstrate: an ability to communicate clearly; a demeanor appropriate to the teaching profession; and a maturity and attitude necessary to meet the demands of the MAT program;
6) Effective July 1, 2010, Connecticut law requires all teacher candidates to undergo a criminal background check prior to being placed in a public school setting for field study, internship, and student teaching. Because a clinical experience is an integral part of each semester, failure to abide by this law will make an applicant ineligible for admission to the program. The School of Education has procedures in place to assist candidates in obtaining the background check. The cost of the background check is the responsibility of the teacher candidate.

## Retention

Teacher candidates in the MAT program at Quinnipiac are expected to demonstrate the professional behaviors and dispositions articulated in both the School of Education's Professional Attributes and Dispositions document and the CT Code of Professional Responsibility for Teachers. Candidates must maintain a GPA of 3.0 or higher for graduate courses in each semester with at least a B- or better in any education course. A grade of $\mathrm{C}+$ or below in any education course (including the graduate content area courses) requires the candidate to retake the course at his/her expense and earn the minimum B- grade.

If the candidate, once formally accepted into the MAT program, fails to maintain the minimum GPA, that candidate may be allowed to remain in the program for a single semester on probationary status. If a candidate on probation fails to meet the minimum GPA by the end of the single proba-
tionary semester, that candidate is dismissed from the program. Granting of probationary status is subject to the director's approval and is neither automatic nor guaranteed.

Candidates failing to meet professional standards in the program may be subject to suspension or dismissal. In addition, candidates who exhibit a lack of effort or enthusiasm in the program, or who reveal interpersonal skills unsuited or inappropriate for teaching, will be required to meet with the MAT program director to discuss continuation in the program.

## Completion

To complete all requirements of the MAT program, a candidate must complete all course work and successfully complete all performance tasks to qualify for teacher certification.

## The Internship

Candidates participate in an internship during the first two semesters of the program. Quinnipiac University has developed collaborative partnerships with school districts throughout central and southern Connecticut to provide graduate candidates with guided, hands-on professional practice and to defray some costs of the program. Candidates in the internship receive a tuition reduction during the internship semesters. (An optional second internship is available during the final two semesters, resulting in significant additional tuition reduction.)

Interns serve in area schools in a variety of capacities and as substitute teachers with guidance from an on-site adviser and from a Quinnipiac faculty member. Each intern has the opportunity to participate in staff meetings and take part in all school operations, becoming a valued member of the school faculty. In the late afternoon and early evening, candidates continue their formal studies on the Quinnipiac campus.

## Five-Semester MAT Degree in <br> Elementary Education

The Quinnipiac University elementary education curriculum is an intensive five-semester program of study consisting of core certification courses that provide eligibility for teacher certification, advanced course work in literacy, numeracy and pedagogy to satisfy master's degree requirements,
and a unique internship experience which provides pre-service teacher candidates the opportunity to learn about schools, students and teaching.

Applicants are accepted for admission to the fall semester only and are expected to enroll as full-time graduate students. To ensure admission into the program with a placement in an internship, applicants should complete the application process early.

## Elementary Education MAT Curriculum Course Title Credits

ED 525 Diversity in the Classroom 3
ED 532 Child Development \& Psychological Theories 3
ED 534 Learning \& Teaching in the Elementary Classroom3

ED 535 Elementary Internship \& Seminar I 1
ED 542 Cultivation, Design \& Management of an Elementary Classroom3
ED 543 Clinical Practice in Reading ..... 3
ED 544 Developing Literacy in the Primary Grades ..... 3
ED 545 Elementary Internship \& Seminar II ..... 1

ED 547

Philosophy of Education

3

ED 550 Issues \& Research in Education 3
ED 552 Teaching in the Inclusive Classroom 3
ED 556 Teaching Literacy in Grades 3-6 3
ED 558 Elementary School Science:
Content \& Pedagogy
ED 562 Facilitating the Arts in the Classroom 2
ED 566 Elementary School Social Studies: Content \& Pedagogy2
ED 568 Teaching Mathematics in the Primary Grades ..... 3
ED 569 Teaching Mathematics in Grades 4-6 ..... 3ED 575 Teacher Discourse: Language \& CommunicationIssues in the Elementary Classroom3
ED 601 Student Teaching \& Seminar ..... 6
ED 693 Research I ..... 1
ED 694 Research II ..... 2

## Five-Semester MAT Degree in Secondary Education

The Quinnipiac University secondary curriculum consists of an intensive five-semester program of study that begins in the fall semester. Each curriculum includes core certification courses that provide eligibility for teacher certification, advanced content (discipline) courses which satisfy master's degree requirements, and a unique internship experience which provides pre-service teachers the opportunity to learn about schools, students and teaching.

To ensure admission into the program with a placement in an internship, applicants should complete the application process as early as possible.

## Secondary Education MAT Curriculum Course Title Credits

ED 500 Internship \& Seminar I
ED 501 Internship \& Seminar II
ED 508 Classroom Environment
ED 509 Reading \& Writing Across the Curriculum
ED 510 Adolescent Development
ED 521 Social \& Philosophical Foundations
ED 524 Methods I
ED 525 Diversity in the Classroom
ED 550 Issues \& Research in Education
ED 582 Special Education
ED 588 Teaching in the Middle Grades
ED 601 Student Teaching \& Seminar
ED 693 Research I
ED 694 Research II
One of the following methods courses:
ED 502 Methods II: Teaching Biology
ED 504 Methods II: Teaching English
ED 505 Methods II: Teaching History/Social Studies
ED 506 Methods II: Teaching Mathematics
ED 507 Methods II: Teaching a World Language 3
Plus four graduate content discipline courses

## Master of Science in Teacher Leadership

## Admission

Applications for the online master of science in teacher leadership program are considered on a rolling basis, and students may apply to enter during the fall or spring semesters. Candidates are encouraged to submit applications as early as possible to ensure consideration for the semester desired.
To qualify for admission to the program, students must:

- have earned a bachelor's degree in education or a related field from an accredited institution with a minimum GPA of 2.67
- have a record of excellent teaching as evidenced by recommendations of supervisors
- demonstrate satisfactory writing skills as evidenced by a written essay
- demonstrate satisfactory dispositions concerning the value of diversity, the efficacy of teacher leaders, and the belief that all children can learn as evidenced by a written essay and during the application interview
In addition to an application for admission, students also must submit:

1. official transcripts of all undergraduate and graduate work completed
2. a letter of intent
3. resume
4. two letters of recommendation
5. application fee
6. essay

## MS in Teacher Leadership Program

The online master of science in teacher leadership program, offered through the School of Education, intends to prepare teacher leaders who have a clear vision of the educated person and can work collaboratively with others toward aligning students' experiences and school programs to support that vision. The objectives of the program are aligned with the standards of the Educational Leadership Constituent Council.

Graduates will understand current research on learning theory and human motivation and be able to promote the continuous improvement of student learning. They will value and understand
diverse perspectives, establish goals and work cooperatively with colleagues and school administrators to improve the quality of school programs, and utilize multiple strategies to help shape the school culture in a way that fosters collaboration among all stakeholders to establish rigorous academic standards for all students.

The program consists of a planned sequence of 30 credits. The first 21 credits are required of all candidates and focus on the following themes:

- Transforming School Culture
- Leading Instruction to Improve Student Learning
- Understanding Research on Best Practices in Literacy Instruction
- Embracing Diversity in Classroom and School Communities
- Leading School Improvement

The additional 9 credits in the program are related to the teacher's area of specialization, including literacy leadership, mathematics leadership, or program improvement leadership. Each area of specialization has its own capstone experience.

## Curriculum

Required Courses (21 credits)
Course Title Credits

EDL 501 Teacher Leadership to Transform School Culture
EDL 503 Leading the Instructional Program to Improve Student Learning
EDL 505 Research-based Literacy Practices
EDL 509 Leading School Improvement
EDL 525 Diversity in the Classroom
Specialization Courses (9 credits)
Literacy Leadership Specialization
EDL 511 Cycles of Inquiry within the Literacy Classroom 3
EDL 513 Coaching Teachers of Literacy
3
EDL 515 Action Research in Literacy Leadership
Mathematics Leadership Specialization
EDL 517 Cycles of Inquiry within the Mathematics Classroom
EDL 519 Coaching Teachers of Mathematics 3
EDL 521 Action Research in Mathematics Leadership 3
Program Improvement Leadership Specialization
EDL 523 Leading Organizational Learning
EDL 609 Educational Program Evaluation
EDL 527 Financing Program Improvement Initiatives

## Sixth-Year Diploma in Educational Leadership

The purpose of Quinnipiac University's sixth-year diploma in educational leadership is to prepare graduates with the perspectives, knowledge and skills to become exceptional school leaders. The School of Education recognizes that the concept of educational leader is three-dimensional, and that successful educational leaders must be teachers, learners and leaders. Therefore, graduates of the sixth-year diploma in educational leadership program are master teachers who have a deep understanding of the teaching and learning process, learners who continue to learn as they continue to lead, and leaders who influence the culture of their schools in ways that support best practices in teaching and learning.

The program reflects the spirit and mission of Quinnipiac University with close attention to the leadership standards for the state of Connecticut and to the standards of the National Council for the Accreditation of Teacher Education. The three values of "excellence in education, a sensitivity to students, and a spirit of community," which are the heart of Quinnipiac's mission statement, are woven throughout the program.

## General Information

The sixth-year diploma in educational leadership program offers Quinnipiac students a post-master's credential, which prepares them to assume a variety of school leadership roles such as department chair, assistant principal, principal, curriculum coordinator and central office administrator below the rank of superintendent. Candidates who complete the first 18 credits of the 30 -credit program, the internship, and pass the Connecticut Administrator Test fulfill the Connecticut State Department of Education certification requirements as an Intermediate Administrator/Supervisor (092).

The program is fully accredited by the Connecticut State Department of Education, which participates in the NASDTEC Interstate Contract.

Note: Because the education program is subject to state review on a regular basis, prospective and current students are advised to see the School of Education for up-to-date program information.

## Admission

Students are admitted into the sixth-year diploma in educational leadership program upon meeting the following requirements:

1. A master's degree in education or a related field from an accredited institution with a minimum GPA of 3.00 ;
2. Evidence of four years of full-time teaching experience in a PK-12 setting;
3. Completion of at least 36 hours (equivalent to 3 credits), of a special education course*;
4. A record of excellent teaching as evidenced by recommendations of supervisors;
5. Satisfactory writing skills as evidenced by a written essay; and
6. Satisfactory leadership dispositions and a professional maturity to meet the demands of the program as evidenced during a formal interview.
*Applicants who have not met the special education requirement may be admitted on the condition that they enroll in a state-approved course.

## Retention

To remain in the program, students must maintain academic standards and honor and follow Connecticut's Code of Professional Responsibilities for Teachers in all interactions in the schools. Students must maintain a 3.0 GPA for graduate courses in each semester with at least B- or better in any leadership course. A grade of $\mathrm{C}+$ or below in any program course requires the student to retake the course and earn a minimum of B-. If a student fails to maintain the minimum GPA, that student may be allowed to remain in the program for a single semester with probationary status. If a student on probation fails to meet the minimum GPA by the end of the single probationary semester, that student is dismissed from the program. Granting of probationary status is subject to the dean's approval and is neither automatic nor guaranteed. Students failing to meet professional standards in the program may be subject to suspension or dismissal.

## Completion

To fulfill all requirements of the sixth-year diploma in educational leadership program, students must complete all course work, including the internship, and successfully complete all performance tasks.

## The Internship

Candidates must participate in an internship after completing EDL 601, 603 and 605 to gain authentic leadership experience. The Internship in Educational Leadership (EDL 607) consists of a series of coordinated activities related to the national standards for school leaders as established by the Educational Leadership Constituent Council (ELCC). The specific experiences are cooperatively planned by the candidate, a faculty member and a school district mentor. To demonstrate mastery of the ELCC standards, each candidate compiles an internship portfolio, which includes a description and analysis of activities related to the national standards, evidence of evaluating a portion of a school program for the purpose of improving student learning, evaluations from the administrator, mentor and University supervisor, a reflection journal describing leadership strengths and needs, a weekly log of activities and hours (a minimum of 216 hours are required), and artifacts from the internship. The internship is scheduled only during the fall or spring semester to ensure the most authentic experience possible.

| Sixth-Year Diploma in Educational |  |  |
| :--- | :--- | ---: |
| Leadership Curriculum |  |  |
| Course | Title | Credits |
| EDL 601 | Leading \& Managing the Contemporary School 6 |  |
| EDL 603 | Leading \& Managing the Instructional Program | 6 |
| EDL 605 | Leading \& Managing School Improvement | 6 |
| EDL 607 | Internship in Educational Leadership | 3 |
| EDL 609 | Educational Program Evaluation | 3 |
| EDL 611 | Educational Law | 3 |
| EDL 613 | Public School Finance | 3 |

Total 30

## School of Health Sciences

Master of Health Science
Anesthesiology Assistant (pending approval)
Cardiovascular Perfusion
Medical Laboratory Sciences
Pathologists' Assistant
Physician Assistant
Radiologist Assistant
Master of Science in Occupational Therapy
(Post-professional online-only program)
Certificate of Advanced Graduate Study in
Occupational Therapy (Post-professional)
Post-Bachelor's Doctor of Physical Therapy
The state of Connecticut is a growing center of nationally known medical facilities, biotechnology development and pharmaceutical research and manufacture. These institutions have increased demands for individuals with up-to-date training. The master of health science program offers several majors that meet these standards. The anesthesiologist assistant program will help meet the demands for mid-level clinical anesthesia practitioners (anesthetists) that function as members of the anesthesia care team led buy an anesthesiologist. The cardiovascular perfusion program provides comprehensive preparation in clinical sciences and clinical internships to prepare perfusionists who provide life support during cardiopulmonary bypass. The medical laboratory sciences/biomedical sciences program provides laboratory professionals with the opportunity to specialize in fields such as microbiology, laboratory management and biomedical sciences. A full-time program for pathologists' assistants provides training in pathology, anatomy and the medical sciences. The physician assistant program provides full-time instruction in the basic medical and clinical sciences needed for certification and a graduate degree in a growing profession.

The radiologist assistant program provides students with full-time advanced training in the field of radiology, which is needed for certification and to obtain a master's degree.

## Admission

Students who hold a bachelor's degree in the biological, medical or health sciences are eligible for admission to the master of health science degree
program. A detailed autobiography of personal, professional and educational achievements as well as two letters of reference must be submitted with a student's application. Applications may be obtained from the Office of Graduate Admissions. Applicants should refer to the graduate admission requirements found previously in this catalog.

The Quinnipiac University physician assistant program participates in the Central Application Service for Physician Assistants (CASPA). Go to www.caspaonline.org for more information regarding the application process and fees. All applications, transcripts, references and other supporting materials are submitted directly to CASPA.

The physician assistant program admits students on a yearly basis. The deadline for completed applications to CASPA is September 1. Interviews are conducted from the early fall through midDecember. Classes begin in late May/early June.

## Master of Health Science

## Anesthesiology Assistant Program

The School of Health Sciences is developing an anesthesiologist assistant program that educates students in all aspects of anesthesia delivery encompassing a broad range of surgical procedures for neonates through geriatric patients. Emphasis is placed on safe and efficacious delivery of anesthesia, acute care physiology and pharmacology, patient monitoring and anesthesia delivery systems. Graduates are anesthetist members of the anesthesia care team supervised by an anesthesiologist who may have responsibility for as many as four operating rooms, each with an anesthetist caring for a patient.

Applicants must have completed a bachelor's degree along with prerequisite courses required for admission to medical school. In addition, students must submit scores for either the Graduate Record Exam or the Medical College Admission Test. Additional admission requirements can be found by contacting The Office of Graduate Admissions. The anesthesiologist assistant program is completed over 27 months with classroom, laboratory, skills laboratory, simulation and proctored clinical experience. Once the program receives accreditation from the Commission on Accreditation of Allied Health Educational

Programs (CAAHEP), students are eligible to sit for the National Certification Exam developed and administered by the National Board of Medical Examiners (NBME) during their last semester in the program. Pending approval by the Connecticut Board of Governors for Higher Education, the anticipated matriculation of students will occur in May 2013.

## Cardiovascular Perfusion Program

The mission of the cardiovascular perfusion program is to: 1) provide excellent education in both the didactic and clinical learning environment; 2) provide research opportunities that contribute to the clinical and scientific knowledge base in the field of extracorporeal circulation; and 3) foster a sense of commitment to continuing education and professional development.

This mission is consistent with the mission of Quinnipiac University, which is to provide a supportive and stimulating environment for the intellectual and personal growth of undergraduate, graduate and continuing education students.

## General Information

The perfusionist provides consultation to the physician in the selection of the appropriate equipment and techniques to be used during extracorporeal circulation. During cardiopulmonary bypass, the perfusionist provides life support to the patient while the heart and lungs are stopped to enable the surgeon to operate. Perfusionists administer blood products, anesthetic agents and drugs through the extracorporeal circuit. The perfusionist is responsible for the induction of hypothermia and other duties, when required. Perfusionists have a role in the implementation and operation of ventricular assist devices designed to provide long-term circulatory support for the failing heart.

This program is fully accredited by the Accreditation Committee-Perfusion Education (6654 S. Sycamore St., Littleton, CO 80120) under the Commission on Accreditation of Allied Health Education Programs.

## Admission

Interested candidates must hold a bachelor's degree from a regionally accredited institution in the U.S. or Canada in the biological, medical or health sciences. Scores for the tests of English as a

Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required if the applicant is from a non-English speaking country. Applicants with a bachelor's degree in another field must have the following course prerequisites:

- two semesters of basic biology (or equivalent)
- two semesters of anatomy and physiology
- two semesters of general chemistry
- one semester of physics.
- one semester of microbiology
- one semester of algebra or calculus
- certification in Basic Life Support from the American Heart Association
Applicants to the program should have a strong background in the health sciences, and be able to work for long periods under intense conditions. Individuals already working in the fields of nursing, respiratory care, physician assistant, physical therapy, paramedical and biomedical engineering are ideally suited for admission into the program.

Applicants must have a minimum undergraduate cumulative GPA of 2.8 , and at least two years of experience working in a health care field involving patient care.

Applications can be obtained from the Office of Graduate Admissions. Applicants should refer to the graduate admission requirements found in this catalog.

A detailed autobiography of personal, professional and educational achievements, and three letters of recommendation must accompany the student's application.

All applications, transcripts, reference letters and supporting materials must be submitted to the Office of Graduate Admissions.

Admission to the program is competitive. Personal interviews, required for admission, are offered to the most qualified candidates.

## Curriculum

Course Title Credits

First Year (college-based didactic course work) Fall Semester I
PR 500 Theoretical Foundations of Cardiovascular Perfusion 2
PR 502 Systems Anatomy \& Physiology I 3
PA 535 Disease Mechanisms 4
PR 508 Extracorporeal Circuitry \& Laboratory I 1
PR 516 Physiologic Monitoring 4
Total 14

## Spring Semester I

 Total 7

## Fall Semester II

PR 520 Research Methods in Cardiovascular Perfusion 2
PR 602 Cardiovascular Perfusion Practicum II 5
Total 7

## Spring Semester II

PR 604 Cardiovascular Perfusion Practicum III 5 Total 5
During the first two didactic semesters, students are introduced to the operating room environment by weekly orientation sessions in one of several affiliated hospitals. Students are required to join the American Society of Extracorporeal Technology and maintain student membership for the duration of the program.

Failure to maintain an overall GPA of 2.67 in each of the two didactic semesters (Fall I and Spring I) will result in automatic dismissal from the program.

## Medical Laboratory Sciences Program

The mission of Quinnipiac University's medical laboratory sciences program is to prepare students to function effectively in the greatly expanding field of biomedical research and diagnostic testing. The two specialties included in the program (biomedical sciences and microbiology) and the integration of courses from these individual specialties provides the student with a comprehensive knowledge to meet the education and technical needs of the laboratory professional in pharmaceutical, biotechnology and medical research as well as diagnostic settings. Students who successfully complete their studies have the option of employment by research/development industry, diagnostic companies or continuing their education toward a degree in PhD programs.

## General Information

Medical laboratory research and diagnostic testing are among today's most exciting professions. The last decade has brought many exciting breakthroughs in the diagnosis and treatment of disease as well as new challenges such as AIDS, Lyme disease and the resurgence of tuberculosis. These new developments and challenges require laboratory professionals to stay on the cutting edge of their field. New techniques have to be mastered, new theories and concepts understood, and new means of managing the more complex operations of laboratories developed. The medical laboratory sciences program at Quinnipiac is specially designed to meet the educational needs of laboratory professionals in both research and medical diagnostic settings. The program provides the training that is necessary to stay current with today's rapidly changing technology and to assume positions of greater responsibility. A laptop is required for all students in the MLS degree program.

## Admission

Students who hold a bachelor's degree in the biological, medical or health sciences are eligible for admission to the medical laboratory sciences program. A detailed autobiography of personal, professional and educational achievements as well as two letters of reference must be submitted with a student's application. Applications may be obtained from the Office of Graduate Admissions. Applicants should refer to the graduate admission requirements found in this catalog. Applications to this program are accepted throughout the year.

## Program of Study

Students may choose either a thesis or a non-thesis option in the medical laboratory sciences program. Both options require students to take four courses or more in their specialization while allowing students to choose a number of electives to meet their individual needs.

The curriculum of the medical laboratory sciences program is designed to allow students to achieve the following objectives:

1. Obtain up-to-date knowledge of foundations and recent advances in the biomedical, biotechnological and clinical sciences.
2. Develop the ability to apply basic knowledge of medicine, chemistry and biology to advanced laboratory specialties.
3. Demonstrate competency in research theory and methodology to solve laboratory problems as economically and expeditiously as possible. The curriculum is constructed to allow students either to work with a particular specialty or to move among related medical laboratory sciences. In view of the fact that the medical laboratory sciences represent the application and extension of the concepts and techniques of physics, chemistry and the biological sciences, it is deemed both necessary and desirable that the state of the art of these basic sciences be surveyed.

## Thesis Option Requirements (based on availability of faculty)

The curriculum includes a minimum of 35 credits including eight credits of thesis (BMS 650, 651).
A minimum of four courses in an area of specialization is required. Elective courses could be chosen from any area of specialization.

| Courses | Credits |
| :--- | ---: |
| BMS 650,651 Thesis | 8 |
| Minimum of four courses in area of specialization | $12-16^{\star}$ |
|  | $11-15^{\star}$ |
| Electives | Total Minimum of $\mathbf{3 5}$ credits |

## Non-Thesis Option Requirements

The curriculum includes a minimum of 38 credits including 2 credits of comprehensive examination (BMS 670 series exam courses). A minimum of four courses is required in an area of specialization. Elective courses may be chosen from any area of specialization.

| Courses | Credits |
| :--- | ---: |
| Comprehensive Exam | 2 |
| Minimum of four courses in area of specialization | $12-16^{\star}$ |
| Electives | $20-24^{\star}$ |
|  | Total Minimum of 38 credits |
| *Since most courses are either 3 or 4 credits, the total credits |  |
| from area of specialization and total number of elective courses |  |
| are based on the number of credits for individual courses. |  |

## Comprehensive Examination

The comprehensive examination in medical laboratory sciences ( 2 credits) is a requirement for the non-thesis option in the medical laboratory science program. The purpose of the exam is twofold. First, the student must demonstrate broad and specific knowledge expected of someone holding a master's degree. Second, the student must be able to integrate knowledge obtained from individual courses into unified concepts which link
the student's own specialization to other fields of study. The student is given two opportunities to demonstrate competency. A written essay exam is administered by a designated faculty member.
Students should schedule an appointment with the program director before registering for the comprehensive exam.

## Biomedical Sciences (specialization courses) Course Title Credits

BIO 515 Advanced Biochemistry 4
BIO 560 Protein Biochemistry \& Enzymology 3
BIO 568 Molecular \& Cell Biology 4
BIO 571 Molecular Genetics 4
BIO 580 Animal Cell Culture 4
BIO 589 Neurophysiology 3
BIO 605 Molecular \& Cell Laboratories I 4
BIO 606 Molecular \& Cell Laboratories II 4
BMS 518 Pathophysiology 3
BMS 521 Advances in Hematology 3
BMS 522 Immunology 3
BMS 527 Pharmacology 3
BMS 532 Histology 4
BMS 535 Histology \& Histochemistry 3
BMS 536 Endocrinology 3
BMS 552 Toxicology 3
BMS 561 Immunohematology 3
BMS 562 Blood Coagulation \& Hemostasis 3
BMS 563 Anemia 3
BMS 564 Fundamentals of Oncology 4
BMS 565 Leukemia 3
BMS 576 Drug Discovery \& Development 3
BMS 578 Cellular Basis of Neurobiological Diseases 3
BMS 579 Molecular Pathology 3
BMS 581 Receptors \& Regulatory Mechanisms 3
BMS 583 Forensic Pathology 3
BMS 591 The New Genetics \& Human Future 3
BMS 595 Transplantation Immunology 3
BMS 598 Synaptic Organization of the Brain 3
PA 515 Human Physiology 4

## Microbiology

BIO 568 Molecular \& Cell Biology 4
BIO 571 Molecular Genetics 4
BIO 580 Animal Cell Culture 4
BIO 605 Molecular \& Cell Laboratories I 4
BIO 606 Molecular \& Cell Laboratories II 4
BMS 522 Immunology 3
BMS 528 Advanced Clinical Parasitology 4
BMS 529 Medical Entomology 4
BMS 530 Advanced Clinical Protozoology 4

BMS 531
BMS 533
BMS 534
BMS 542
BMS 569
BMS 570
BMS 572
BMS 573
BMS 574
BMS 575
BMS 576
BMS 579
BMS 584 Emerging \& Re-emerging Infectious Diseases
BMS 585
BMS 596
Advanced Clinical Helminthology
Air, Water \& Soil Microbiology
Industrial Microbiology/Biotechnology
Advanced Microbiology
Antimicrobial Therapy
Virology
Pathogenic Microbiology
Mycology
Microbial Physiology
Food Microbiology
Drug Discovery \& Development:

Outbreak Control
dibreak Control
Immunology of Infectious Diseases

## Medical Laboratory Sciences Electives

BIO 500
BIO 515
BIO 560
BIO 568
BIO 571
BIO 580
BIO 589 Neurophysiology
BIO 605 Molecular \& Cell Laboratories I
BIO 606 Molecular \& Cell Laboratories II
BMS 510 Biostatistics
BMS 517 Human Embryology
BMS 518 Pathophysiology
BMS 521 Advances in Hematology
BMS 522 Immunology
BMS 526 Principles of Epidemiology
BMS 527 Pharmacology
BMS 528 Advanced Clinical Parasitology
BMS 529 Medical Entomology
BMS 530 Advanced Clinical Protozoology
BMS 531 Advanced Clinical Helminthology
BMS 532 Histology
BMS 533 Air, Water \& Soil Microbiology
BMS 534 Industrial Microbiology/Biotechnology
BMS 535 Histochemistry
BMS 536 Endocrinology
BMS 552 Toxicology
BMS 561 Immunohematology
BMS 562 Blood Coagulation \& Hemostasis
BMS 563 Anemias
BMS 564 Fundamentals of Oncology
BMS 565 Leukemia
BMS 569 Antimicrobial Therapy
BMS 570 Virology
BMS 572 Pathogenic Microbiology
BMS 573 Mycology ..... 4
BMS 574 Microbial Physiology ..... 4
BMS 575 Food Microbiology ..... 4
BMS 576 Drug Discovery \& Development ..... 3
BMS 578 Cellular Basis of Neurobiological Disorders ..... 3
BMS 579 Molecular Pathology ..... 3
BMS 581 Receptors \& Regulatory Mechanisms ..... 3
BMS 583 Forensic Pathology ..... 3
BMS 591 The New Genetics \& Human Future ..... 3
BMS 595 Transplantation Immunology ..... 3
BMS 596 Immunology of Infectious Diseases ..... 3
BMS 598 Synaptic Organization of the Brain ..... 3
BMS 688 Independent Study ..... 2
BMS 689 Independent Study ..... 2
PA 515 Human Physiology ..... 4
PA 535 Disease Mechanisms ..... 4

## Pathologists'Assistant Program

The mission of Quinnipiac University's pathologists' assistant program is to prepare students with comprehensive knowledge in the practice and operation of a pathology laboratory. The program aims to maximize the students' technical proficiency and creative thinking by successfully integrating didactic biomedical knowledge with hospital-based training. The culmination of this type of training assures that the graduates of the program are able to carry out a myriad of functions critical in becoming a successful pathologists' assistant.

Students are admitted to the pathologists' assistant program on a rolling basis. Applications are accepted until Dec. 15. Interviews are conducted throughout the year until February. The six-semester class cycle begins with summer semester I.

## General Information

The purpose of this program is to train qualified candidates to be pathologists' assistants. Upon successful completion of their training, graduates are employed by pathologists in hospital laboratories, clinical laboratories and medical research centers. Currently, there is a nationwide demand for pathologists' assistants. This demand results from the tremendous explosion in medical information and technology, the demand for new and more sophisticated pathological determinations and a national decline in the number of medical residents in pathology. Through their graduate studies, pathologists' assistant students are able to:

1. Develop a comprehensive knowledge of scientific facts, principles and data that contribute to the practice and operation of a pathology laboratory.
2. Understand performance-based education to assist the anatomic pathologist in the hospital or in other medical environments.
3. Compare the structure and physiological functions of normal organs, tissues and cells to those of abnormal ones.
4. Understand the characteristics of stains and the staining properties of normal and abnormal cells and their cellular constituents.
5. Assist the pathologist who is determining the pathogenesis of disease by:
a. Properly collecting and handling specimens and keeping appropriate records using biomedical/photography techniques.
b. Submitting tissues and selecting the necessary and appropriate techniques for processing and proper staining procedures.
c. Reviewing histological slides for technical quality and collecting clinical information and laboratory data for final diagnosis by the pathologist.
6. Perform a postmortem examination and relate the clinical history to the results of the dissection.
7. Recognize and record anatomic and morphologic changes in relation to clinical manifestations and laboratory data for the pathologist's interpretation.
8. Understand the operation and services provided by the anatomic pathology laboratories and develop skills for the operation and management of the autopsy suite and surgical cutting room.
9. Interact with the pathologist by integrating didactic biomedical knowledge with practical hospital-based training.
10. Through management training and experience, supervise and coordinate the work of other laboratory professionals.
The program is a cooperative educational endeavor involving Quinnipiac University; the Veterans
Administration Medical Center, West Haven, CT; Hospital of St. Raphael, New Haven, CT; Norwalk Community Hospital, Norwalk, CT; St. Vincent's Medical Center, Bridgeport, CT; St. Francis Hospital, Hartford, CT; CT State Medical Examiner Office, Farmington, CT; UConn Health Center, Farmington, CT; Hartford Hospital, Hartford, CT; Yale University School of Medicine, New Haven, CT; Baylor University, Houston, TX; Massachu-
setts General Hospital, Boston, MA; Mayo Clinic, Minneapolis, MN, and Crouse Hospital, Syracuse, NY. The program consists of both classroom and clinical training. When not attending formal courses or working with specific tutors, trainees are assigned to the laboratory service of the Veterans Administration Medical Center and/or other hospitals for practical training in anatomic pathology. Quinnipiac University is a charter member of the Association of Pathologists' Assistant Training Programs, and its program meets criteria established by the American Association of Pathologists' Assistants. This program is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 606313415, Tel: 773-714-8880.

## Admission

Interested candidates who have a bachelor's degree in the biological or health sciences from regionally accredited institutions in the United States or Canada are eligible for admission to the pathologists' assistant program. Applicants who hold a bachelor's degree from a different field must possess, at a minimum:

- two semesters of basic biology (or equivalent)
- two semesters of general chemistry
- two semesters of anatomy and physiology
- one semester of organic chemistry
- one semester of mathematics
- 16 credits of biology, particularly courses in microbiology, physiology, biochemistry.
All applicants must possess a minimum undergraduate cumulative GPA of 2.75 and a one semester course in microbiology.

All prerequisites must be completed at a regionally accredited institution in the United States or Canada. Scores from the Graduate Record Examination are not required.

Applications may be obtained from the Office of Graduate Admissions. Applicants should refer to the graduate admission requirements found in this catalog.

A detailed autobiography of personal, professional and educational achievements as well as letters of reference must be submitted with a student's application.

All applications, transcripts, references and other supporting materials are submitted to the Office of Graduate Admissions.

Admission to the program is competitive. Personal interviews, required for admission, are offered to the most qualified individuals. Personal computers (desk or laptop) are required.

## Curriculum

Course Title
Credits
First Year (college-based didactic course work)
Summer Session
PA 502 Medical Terminology: Advanced 2

PA 511 Human Microscopic Anatomy
PA 512 Human Anatomy
PA 515 Human Physiology
PA 526 Biomedical Photography/Forensic Imaging 4
(portion online)
Total 18

| Fall Semester |  |
| :--- | :--- |
| BMS 517 | Human Embryology (online) |
| BMS 532 | Histology |
| PA 513 | Basic Human Pathology I |
| PA 518 | Laboratory Management |
| PA 535 | Disease Mechanisms |

4PA 513 Basic Human Pathology I
3PA 535 Disease Mechanisms4

Total 17

| Spring Semester |  |
| :--- | :--- |
| BMS 535 | Histochemistry |
| BMS 572 | Pathogenic Microbiology |
| PA 514 | Basic Human Pathology II |
| PA 516 | Clinical Pathology |
| PA 517 | Applied Anatomic Pathology |

Pathogenic Microbiology ..... 4
3PA 516 Clinical Pathology
PA 517 Applied Anatomic Pathology ..... 4

## Second Year

(12-month hospital-based clinical training session) Summer Session

| PA 520 | Autopsy Pathology I | 6 |
| :--- | :--- | ---: |
| PA 523 | Surgical Pathology I | 6 |
|  |  | Total 12 |

## Fall Semester

PA 521 Autopsy Pathology II 6

PA 524 Surgical Pathology II

## Spring Semester

PA 522 Autopsy Pathology III 6

PA 525 Surgical Pathology III 6
Total 12
In addition to the college-based classroom course work taken during the first year, the student is introduced and oriented to the pathologists' assistant profession by weekly attendance at clinical and gross conferences at the veterans hospital. This facilitates early integration of the classroom course work with intensive clinical
training during the second year. Failure to maintain an overall GPA of 3.0 at the end of the spring semester of the first year will result in automatic dismissal from the program.

## Physician Assistant Program

The physician assistant program of Quinnipiac University embodies the University's commitment to three important values: excellence in education, sensitivity to students, and a spirit of community. The University as a whole strives to prepare graduates who manifest critical and creative thinking, effective communication skills, informed value judgments, and who possess an educational foundation for continued growth and development in a changing world of diverse cultures and people. The mission of the PA program is to foster the development of compassionate, professional and highly skilled healthcare providers who will embody the competencies of the PA profession. These competencies include "the effective and appropriate application of medical knowledge, interpersonal and communication skills, patient care, professionalism, practice-based learning and improvement, systems-based practice as well as an unwavering commitment to continual learning, professional growth and the physician-PA team, for the benefit of patients and the larger community being served." ${ }^{1}$

Specifically, the physician assistant program at Quinnipiac is dedicated to the development of knowledgeable and skilled physician assistants who are committed to:

1. Professionalism—Promoting professional and ethical health-care practices.
2. Leadership-Developing future leaders within the profession and the community.
3. Community Outreach-Instilling the importance of active community involvement.
4. Cultural Competence-Enhancing sensitivity to the social and cultural diversity in healthcare.
${ }^{1}$ Competencies for the Physician Assistant Profession. National Commission on Certification of Physician Assistants (NCCPA). 2005.

## General Information

This program educates qualified individuals to be highly skilled members of the health care team who, working on the physician-led team, provide diagnostic and therapeutic patient care. Currently there is tremendous demand for this sought-after
professional who works in a number of health care facilities ranging from private practices to tertiary care hospitals. Graduates of this program are able to do the following:

1. Elicit a detailed and accurate history and perform the appropriate physical examination; record and present pertinent data, including interpretive recommendations, in a manner meaningful to the physician.
2. Perform and/or interpret routine diagnostic studies such as common radiologic studies, routine laboratory procedures and electrocardiographic studies.
3. Perform such routine procedures as injections, suturing, wound management, incision and drainage of superficial infections, cast application and simple fracture follow-up.
4. Perform patient rounds, record patient progress notes and pertinent case summaries, determine and implement diagnostic procedures and therapeutic plans.
5. Instruct, counsel and prescribe for patients regarding physical and mental health, including proper diet, disease prevention, therapy, normal growth and development, family planning, lifestyle risks, situational adjustment reactions and other health care matters.
6. Deliver or assist in the delivery of services to patients requiring continuing care in homes, nursing homes and extended care facilities, including reviewing and monitoring treatment and therapy plans.
7. Perform independent evaluation and initiate therapeutic procedures in life-threatening events.

8. Facilitate referral to community resources, health facilities and agencies and arrange appropriate patient follow-up.
9. Critically evaluate medical literature, policies and systems to enhance their leadership qualities in community and professional endeavors.
Quinnipiac is a member of the Physician Assistant Education Association (PAEA) and accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA).

## Admission

Interested candidates must possess, at a minimum:

- a bachelor's degree from a regionally accredited institution in the United States
- 16 credits of biology with labs (credits must be in mammalian or human biology), including 3-4 credits of microbiology (with labs) and 6-8 credits of anatomy and physiology (with labs)


## prior to application

- 8-12 credits of chemistry with labs, including 3-4 credits of organic or biochemistry prior to application
- 3 credits of college algebra, statistics, or equivalent prior to application
- all prerequisites must be completed at a regionally accredited institution in the United States
- scores from the tests of English as a Foreign Language (TOEFL) or (IELTS) International English Language Testing System if the applicant is from a non-English speaking country
- scores from Graduate Record Examination are not required
The most competitive applicants should possess at a minimum:
- a cumulative GPA of 3.0 and science GPA of 3.0
- a minimum of one year ( 2,000 hours) direct
patient care experience in the U.S. health care system
The physician assistant program is a full-time program. There is no part-time status. The program does not accept: transfer credits, applications for challenge examinations and/or credits for experiential learning. Admission to the program is highly competitive. Applications are reviewed relative to undergraduate cumulative and science GPA, patient care experience, completion of narrative and letters of reference. Personal interviews, required for admission, are offered to the most qualified individuals.

The Quinnipiac physician assistant program participates in the Central Application Service for Physician Assistants (CASPA). Go to www.caspaonline.org for more information regarding the application process and fees. All applications, transcripts, references and other supporting materials are submitted directly to CASPA. Applicants may contact CASPA or the Office of Graduate Admissions for more information.

## Physician Assistant Program Program of Study

| Course | Title | Credits |
| :--- | :--- | ---: |
| First Year, | Summer Session |  |
| PY 501 | Human Physiology | 4 |
| PY 503 | Principles of Interviewing | 3 |
| PY 507 | Principles of Electrocardiography | 1 |
| PY 508 | Diagnostic Methods I | 2 |
| PY 515 | Clinical Pathology | 3 |
| PY 517 | Human Anatomy | 4 |

Total 17

## Fall Session

| PY 502 | Physical Diagnosis | 4 |
| :--- | :--- | :--- |
| PY 505 | Clinical Pharmacology I | 2 |
| PY 506 | Principles of Medicine | 6 |
| PY 514 | Diagnostic Methods II | 1 |
| PY 572 | Medical Microbiology \& Infectious Diseases | 4 |

## Spring Session

| PY 504 | History, Roles \& Responsibilities <br> of the Physician Assistant | 1 |
| :--- | :--- | :--- |

PY 509 Principles of Obstetrics \& Gynecology 3
PY $510 \quad$ Principles of Pediatrics
PY 511 Principles of Surgical \& Emergency Management
PY 512 Psychosocial Issues in Health Care 2
PY 513 Behavioral Medicine
PY 516 Clinical Pharmacology II
Second Year
PY 611 Clinical Residency I
PY 612 Clinical Residency II
PY 613 Clinical Residency III 3
PY 614 Clinical Residency IV 3
PY 615 Clinical Residency V 3
PY 616 Clinical Residency VI 3
PY 617 Clinical Residency VII 3
PY 618 Clinical Residency VII
PY $619 \quad$ Clinical Residency IX

## Third Year <br> Summer Session

PY 526 Principles of Epidemiology 3
PY 536 Biostatistics 3
PY 546 Ethics in Health Care Delivery 3
PY 608 Graduate Seminar 4
PY 676 Comprehensive Examination 2
Total 15
In addition to the intensive classroom study during the first year, students are introduced to the clinical application of their training by being paired with a graduate physician assistant or physician one day a week. This is designed to facilitate application of the skills and knowledge acquired in the classroom setting to the care of the patient.

Upon successful completion of the 27-month Quinnipiac University physician assistant program, students are granted a master of health science and a certificate of completion as a physician assistant.

## Radiologist Assistant Program

The Quinnipiac University master of health science program for radiologist assistants is designed to prepare advanced practitioners in the field of radiology. The mission of the program is to develop students' technical and interpersonal communication skills through a logical and organized sequence of didactic, laboratory and clinical experiences. The program offers multiple clinical assignments to provide maximum exposure to diversified radiographic and interventional procedures and imaging protocols. In addition, the program prepares skilled graduates who are competent in the art and science of radiography, fluoroscopy and interventional procedures. Graduates of the radiologist assistant program are prepared for career entry and are capable of meeting the needs of the community for highly qualified professionals.

## General Information

The radiologist assistant position was developed by the American College of Radiology and the American Society of Radiologic Technologists to meet the increasing demands of imaging technology. Radiologist assistants function as physician extenders whose focus is strictly within the radiology department. They provide expanded patient management, perform complex procedures and conduct research and teaching. One of the radiologist assistant's most
important functions is providing direct patient care including preprocedure consultations and procedure preparation. In clinical practice, the radiologist assistant works under the supervision of a Board-certified radiologist. The radiologist assistant program at Quinnipiac University is formally recognized by the American Registry of Radiologic Technologists.

## Program Outcomes

The master of health science in radiologist assistant education prepares graduates to:

- Integrate professional, ethical and legal standards, and interdisciplinary collaboration into radiologist assistant practice.
- Integrate effective written, oral and nonverbal communication skills into radiologist assistant practice.
- Utilize information technology and informatics to communicate, manage knowledge, mitigate error, and support clinical decision making in radiologist assistant practice.
- Synthesize clinical data and scientific evidence, apply appropriate modalities, evaluate findings, and make recommendations within the scope of radiologist assistant practice.
- Provide patient centered care.
- Assume a leadership role in applying quality improvement methods.


## Admission to the Program

Candidates applying for admission to the careerentry master's radiologist assistant program are required to be a radiologic technologist in good standing with the American Registry of Radiologic Technologists. They must have a bachelor's degree, documented evidence of at least 2,000 hours of direct patient care contact post-radiography certification, certification in CPR for Healthcare Professionals and have completed the following prerequisite course requirements:

- 4 credits of chemistry
- 3 credits of college-level mathematics
- 16 credits of biology with labs, including anatomy and physiology
- 3 credits of pathophysiology

| MS in Radiologist Assistant Curriculum |  |  |
| :--- | :--- | ---: |
| Course | Title | Credits |
| Summer I |  |  |
| PA 502 | Medical Terminology: Advanced | 2 |
| RA 517 | Human Anatomy | 4 |
| RA 518 | Pathophysiology | 3 |

Course Title Credits Summer I
PA 502 Medical Terminology: Advanced
RA 517 Human Anatomy
Fall I
RA 505 Clinical Pharmacology ..... 3
RA 530 ..... 3RA 532Interventional Procedures I/Clinical
Observation
RA 542 Patient Assessment, Management \&Education3
RA 545 Research Methods \& Design ..... 3
Total 15
Spring I
RA 531 Image Critique \& Pathologic PatternRecognition II3
RA 535 Interventional Procedures II ..... 3
RA 550 Clinical Seminar I ..... 1
RA 570 Radiologist Assistant Clinical I ..... 3
RA 590 Thesis I ..... 1
Total 11
Summer II
RA 551 Clinical Seminar II ..... 1
RA 571 Radiologist Assistant Clinical II ..... 5
RA 591 Thesis II ..... 2
Total 8
Fall II
RA 552 Clinical Seminar III ..... 3
RA 572 Radiologist Assistant Clinical III ..... 5
Total 8
Spring II
RA 573Radiologist Assistant Clinical IV5
Total 5
Total Credits 58

## Clinical Experiences

Clinical experiences enable students to apply the knowledge learned in the first two semesters of the program. In total, the program requires approximately 2,100 hours of clinical experience. Quinnipiac provides all clinical placements throughout the program.

## Post-professional Master of Science in Occupational Therapy <br> (online program)

Occupational therapy helps individuals develop, maintain or adapt meaningful occupations despite the challenges of age, environment or health conditions. The post-professional master of science in occupational therapy is designed for practicing
clinicians who have a bachelor's degree in occupational therapy and want to merge their experience and practical skills with prevailing professional knowledge.

The program enables occupational therapy professionals to advance their knowledge of emerging research, leadership, critical thinking and entrepreneurial concepts of occupational therapy. The degree can be completed in five semesters online with minimal on-campus requirements tailored for working professionals.

Courses run in seven-week modules during the fall and spring semesters. During the two summer semesters, courses run in seven- and five-week modules, respectively. Practitioners are required to attend a one-day, on-campus orientation at the beginning of the program and at the end of the program as part of the scholarly seminar.

The online program offers an unprecedented opportunity for practicing occupational therapists to continue their education without interrupting their careers. The pace of the program permits steady accumulation of skills that can be applied immediately to the workplace.

Practitioners develop leadership skills so they can:

- build on their experience
- refine clinical skills in specialized practice
- participate in research

Quinnipiac also offers a post-master's certificate of advanced graduate study in occupational therapy for therapists who wish to obtain advanced skills. This program also follows all of the policies of graduate programs.

## Admission

To qualify for admission to the post-professional master of science in occupational therapy program, a student must have a bachelor's degree in occupational therapy (with an undergraduate GPA of 2.5 or higher). Classes begin in August for the fall term. Candidates are advised to submit applications as early as possible.

In addition to an application for admission, students also must submit:

1. application fee
2. official transcript(s), indicating the year of graduation, from an Accreditation Council for Education of Occupational Therapy (ACOTE) or a World Federation of Occupational Therapy (WFOT) accredited entry-level professional program
3. proof of initial certification by the National

Board for Certification of Occupational Therapy (NBCOT)
4. proof of licensure to practice (if applicable in the state of current practice)
5. verification of employment on at least a part-time basis
6. two professional references
7. a personal essay that sets forth learning objectives and applicability of those objectives to practice
Prior to the start of course work, the student must become a member of the American
Occupational Therapy Association, and sign an ethics pledge.

## Curriculum

The post-professional MS in occupational therapy curriculum spans the depth and breadth of evi-dence-based practice, clinical research, and current and future trends in practice, such as leadership and entrepreneurial concepts of occupational therapy.
Course Title
Required Courses ( 32 credits)
Evidence-based Practice

| OT 600 | Evidence-based Practice in OT | 3 |
| :--- | :--- | :--- |
| OT 604 | Directed Study in Evidence- <br> based Practice | 3 |

Research: Courses must be completed in the order listed
OT 601 Research Methods I 4
OT 603 Research Methods II 4
OT 606 Professional Paper or Project 3
OT 609 Scholarly Seminar 3
Current and Future Trends in Practice
OT 602 Practice Trends in OT 3
OT 605 Directed Study in Clinical Practice 3
OT 607 Educational Leadership 3
OT 608 Entrepreneurial Concepts for OT 3

## Certificate of Advanced Graduate Study in Occupational Therapy

## Admission

Candidates for the certificate of advanced graduate study in occupational therapy must have completed an entry-level degree program in occupational therapy.

In addition to an application for admission, students also must submit:

1. application fee
2. official transcript(s) of undergraduate and graduate degree programs, indicating the year of graduation, from an Accreditation Council for

Education of Occupational Therapy (ACOTE) or a World Federation of Occupational Therapy (WFOT) accredited entry-level professional program (note: students must have received a master's degree to apply to the certificate program)
3. proof of initial certification by the National Board for Certification of Occupational Therapy (NBCOT)
4. proof of licensure to practice (if applicable in the state of current practice)
5. verification of employment on at least a part-time basis
6. two professional references
7. a personal essay that sets forth learning objectives and applicability of those objectives to practice

Quinnipiac's School of Health Sciences offers this program for individuals who have an entry-level master's degree in occupational therapy and who wish to obtain advanced skills that will help promote the occupational therapy profession and build on their current experience while refining their clinical skills.

This 15-17 credit program focuses on research, leadership, critical thinking and entrepreneurial concepts. Practitioners are immersed in course work that emphasizes the changing role of occupational therapy while supporting individual learning in a selected area of practice.

## Certificate of Advanced Graduate Study in Occupational Therapy Curriculum

## Course Title <br> Required Courses

OT 600 Evidence Based Practice in OT
OT 602 Practice Trends in OT
OT 606 Professional Paper or Project
Recommended Elective Courses for the Certificate of Advanced Graduate Study (student will select 2 or 3 )
OT 601 Research Methods I
OT 603 Research Methods II
(OT 601 is a prerequisite)
OT 604 Directed Study in Evidence Based Practice (OT 600 is a prerequisite)
OT 605 Directed Study in Clinical Practice
OT 607 Educational Leadership
OT 608 Entrepreneurial Concepts for OT
OT 609 Scholarly Seminar (OT 601 \& 603 are prerequisites)

## Post-Bachelor's Doctor of Physical Therapy (DPT)

Beginning in Fall 2013, students who have a bachelor's degree and have completed required prerequisites will be eligible to apply for admission into the three-year graduate DPT program. Admitted students will join students from the freshman entry BS/DPT program at Quinnipiac. Students entering the graduate DPT program will be selected from a pool of both internal (Quinnipiac) students and students from other institutions. Students wishing to apply to the graduate DPT program must use the Physical Therapy Centralized Application Service (PTCAS) for graduate physical therapy programs. The graduate DPT program at Quinnipiac University will be listed on the PTCAS website in Spring 2012 to allow students to apply for Fall 2013 admission. All graduate applications, transcripts, references and other supporting documentation for graduate admission must be submitted directly to PTCAS. For more information about PTCAS, visit www.ptcas.org. (Note: The use of PTCAS is not required for students admitted to Quinnipiac University as freshmen into the combined BS/DPT.) Admission to the program is competitive and based on available space in the program; therefore there can be no guarantee of graduate admission.

## General Information

An education in physical therapy at Quinnipiac University embodies both the University's commitment to its three core values: high-quality academic programs, a student-oriented environment and a strong sense of community, and the American Physical Therapy Association's core values: accountability, altruism, compassion/ caring, excellence, integrity, professional duty and social responsibility. The program in physical therapy prepares students to become competent and compassionate entry-level physical therapists, who are able to practice in a variety of settings serving diverse populations across the lifespan.

To achieve its mission, the program in physical therapy

- builds on a strong foundation of liberal arts and sciences
- cultivates critical and reflective thinking, clinical decision-making, and lifelong learning by
utilizing an evidenced-based learning model, authentic assessments and a variety of learning experiences that include interactive technology. This learning model features small lab sizes, hands-on activities, visits to area clinics and opportunities to engage in professional development forums and community interdisciplinary collaboration
- provides both in-class and in-clinic opportunities for students to engage in the essential elements of patient/client management
- supports faculty teacher-scholars who are effective teachers and who collectively engage in scholarship, professional development, direct patient care and University and community service
Based on the stated mission, the Department of Physical Therapy has set forth the following goals for the program:
- a high-quality, entry-level education
- continuing education for the clinical community
- effective staff support
- PT clinical partnerships
- high-quality clinical education opportunities
- opportunities for student service

Student goals include the ability to demonstrate the skills necessary for entry-level clinical practice, to participate in research and/or service learning, demonstrate effective education of patients, families, peers, other health professionals and the community, and to participate in service.

Faculty goals include providing effective teaching, as well as participating in scholarship and in service.

## School of Law

For information about the course of study and admission to the School of Law, see page 41 of this catalog and/or contact the school's Office of Admissions at 203-582-3400; the email address is ladm@quinnipiac.edu.

## School of Nursing

Doctor of Nursing Practice<br>Post-bachelor's study<br>Adult-Gerontology Nurse Practitioner<br>Family Nurse Practitioner<br>Post-master's study

The graduate nursing program bas applied for accreditation from the Commission on Collegiate Nursing Education (CCNE). An accreditation visit is scheduled for Spring 2013, prior to graduation of the first doctor of nursing practice (DNP) class at Quinnipiac University.

## Mission Statement

The School of Nursing prepares nurses with disciplinary knowledge and clinical experience to become full partners in health care.

## Values

School of Nursing values include:

- Diversity of ideas, persons and cultures
- Supportive learning environments
- Scholarly undertakings to advance education and practice
- Ethical conduct in personal and professional arenas
- Holistic nursing across the spectrum of health care
- Interprofessional education and collaboration
- Innovative learning methodologies
- Systematic assessment and evaluation
- Lifelong learning


## General Information

An education at Quinnipiac embodies the University's commitment to three core values: high-quality academic programs, a student centered environment and a strong sense of community. Learning occurs in a highly personalized, student-centered community, which promotes academic excellence. Graduate nursing education broadens the scope of practice and provides for the acquisition of expertise in an area of specialization. The graduate nursing program offers three uniquely focused tracks leading to the doctor of nursing practice as students prepare for
leadership roles in advanced specialty practice, nursing leadership and organizational management.

## Graduate Nursing Program Objectives

The objectives of the DNP program are to prepare graduates for advanced nursing practice who are capable of providing holistic health care for diverse individuals, families or populations in a variety of settings. Specifically, the program seeks to produce graduates who:

1. Demonstrate clinical reasoning through an understanding of science and evidence-based practice.
2. Design, implement and evaluate quality improvement initiatives across the systems in which health care is delivered.
3. Analyze and critique the available evidence for best practices in health care.
4. Apply technology and information fluency to conduct practice inquiry.
5. Advocate for rational health policies to improve patient care and enhance effective use of resources.
6. Demonstrate leadership through interprofessional collaboration to improve patient and population health outcomes.
7. Direct health promotion and disease prevention efforts to improve patient and population health outcomes.
8. Provide competent, culturally sensitive, and ethically based care to individuals and/or populations in a defined specialty of advanced nursing practice.

## Curriculum

Students who are registered nurses and have a bachelor's degree may pursue doctoral training as an advanced practice nurse in one of two specialty areas:

1. adult-gerontology nurse practitioner
2. family nurse practitioner

Full-time students enrolled in the adultgerontology or family nurse practitioner tracks can complete the degree requirements for a doctor of nursing practice in three years. The full-time clinical experience occurs two days a week over the three calendar years and allows for part-time work. Students who are new to nursing or those who wish to begin their education at a more relaxed
pace can choose a four-year option, which allows for part-time study for the first two years. This option allows for full-time work in the first two years of the program and part-time work in the final two years.

For students with a master's degree in nursing or a related field, the post-master's doctoral option offers an opportunity to advance career goals more rapidly. The Care of Populations track provides educational preparation for executive leadership positions and population-focused care. Postmaster's students enrolled in the Care of Populations track can complete the program in two years.

## Scholarly Portfolio

Upon admission, students are assigned an adviser, who meets with them for academic and scholarly advising over the course of the program. All students in the DNP program engage in scholarly inquiry through a variety of projects that are embedded in core and specialty courses throughout the program. Students are encouraged early to identify a theme or focus of inquiry. These completed projects are collected in a capstone portfolio. In the final semester, students reflect on how these projects have helped them achieve the overall program objectives during their course of study. The student's ongoing portfolio work is evaluated by the full time faculty teaching the courses, in which the projects reside and the final synthesis will be graded as pass/fail by their major adviser.

For more information about any of these offerings, visiting the graduate nursing program website at www.quinnipiac.edu.

## Adult-Gerontology Nurse Practitioner Track (68 credits)

The adult-gerontology nurse practitioner track prepares qualified professional nurses to practice at an advanced level in primary care settings. The curriculum follows the standards set by the National Organization of Nurse Practitioner Faculties, the American Nurses Association, and the American Association of Colleges of Nursing. It provides 1,000 hours of precepted practice, thereby enabling graduates to diagnose and manage most common illnesses, and to assume the responsibilities commensurate with prescriptive authority. Working
independently and collaboratively with nurse practitioners and other members of the health care team, graduates are prepared to provide high-quality, cost-effective and holistic primary care across the lifespan of adults. Graduates are eligible to take a national examination for certification as adult nurse practitioners.

## Family Nurse Practitioner Track (75 credits)

The family nurse practitioner track prepares qualified professional nurses to practice at an advanced level in primary care settings. The curriculum follows the standards set by the National Organization of Nurse Practitioner Faculties, the American Nurses Association, and the American Association of Colleges of Nursing. It provides 1,000 hours of precepted practice, thereby enabling graduates to diagnose and manage most common illnesses, and to assume the responsibilities commensurate with prescriptive authority. Working independently and collaboratively with nurse practitioners and other members of the health care team, program graduates are prepared to provide high-quality, cost-effective and holistic primary care across the lifespan. Graduates are eligible to take a national examination for certification as family nurse practitioners.

## Post-master's Care of Populations Track (33 credits)

The post-master's population care track is for master's prepared nurses who want to further develop organizational leadership skills. In addition to the DNP core classes, a select group of classes explore health care systems, organizational dynamics, and population-focused inquiry. Practice and field experience of 500 hours related to the student's interests enhance learning.

## Admission Requirements

An applicant to the DNP program must be a registered nurse or NCLEX eligible nurse and have a bachelor's degree in nursing or another field. An undergraduate cumulative GPA of 3.0 or better is required. Additionally applicants to the post-master's tracks must have a master's degree in nursing or a related field and those applying to the care of individuals track also must be certified as APRNs. Post-master's applicants are required to
provide a letter from their prior master's program detailing the total number of supervised clinical hours they completed as part of that program. Applicants should submit the following to the Office of Graduate Admissions.

1. a completed admissions application including a resume and a personal statement addressing the following: a) professional goals and motivations; b) a nursing experience that has influenced or shaped your practice; c) a health care problem that interests you for potential doctoral study.
2. official transcripts from all schools previously attended.
3. official recent results of the Test of English as a Foreign Language (TOEFL) or (IELTS) International English Language Testing System for international applicants.
4. two letters of recommendation from persons with authority to evaluate your professional ability.
5. proof of current licensure or eligibility for licensure as a registered nurse in the state of Connecticut.
6. letter from applicant's prior master's program detailing the number of supervised clinical hours completed as part of that program (for postmaster's DNP applicants only).
Candidates applying for full-time admission for the fall term must submit a completed application by June 1 .

When all application materials are received, an interview with the graduate nursing program director and/or member of the faculty will be arranged for eligible candidates.

| Learning Pathways |  |
| :--- | ---: |
| DNP: Adult-Gerontology Nurse Practitioner |  |
| CourseTitle Credits <br> First Year, Fall Semester  <br> BMS 515 Advanced Pathophysiology I <br> NUR 514 Epidemiology \& Evidenced-Based Practice <br> NUR 520 Advanced Health Assessment I <br> NUR 520L 3 <br> Advanced Health Assessment Lab 3 <br> NUR 540 Health Promotion \& Advocacy$\quad 3$ |  |
|  |  |

Total 14
First Year, Spring Semester
BMS 516 Advanced Pathophysiology II 3
NUR 516 Health Policy \& Organizational Systems 3
NUR 522 Advanced Health Assessment II 3
NUR 522L Advanced Health Assessment Lab 2
NUR 542 Reproductive Health Problems in Primary Care 3
Total 14

| Summer 1 |  |  |
| :---: | :---: | :---: |
| NUR 512 | Information Literacy \& Technology | 1 |
| NUR 518 | Principles of Ethical Theory in Nursing |  |
| NUR 526 | Laboratory Diagnosis | 2 |
|  |  | Total 4 |
| Second Year, Fall Semester |  |  |
| NUR 530 | Advanced Pharmacology | 3 |
| NUR 620 | Common Problems in Primary Care | 3 |
| NUR 621 | Adult Health Practicum \& Seminar I | 3 |
|  |  | Total 9 |
| Second Year, Spring Semester |  |  |
| NUR 524 | Principles of ECG Interpretation | 1 |
| NUR 528 | Principles of Radiography | 2 |
| NUR 626 | Complex Problems in Primary Care | 3 |
| NUR 627 | Adult Health Practicum \& Seminar II | 3 |
|  |  | Total 9 |
| Summer 2 |  |  |
| NUR 532 | Special Topics in Adult Pharmacology | 1 |
| NUR 639 | Clinical Practice Immersion* | 1 |
|  |  | Total 2 |
| Third Year, Fall Semester |  |  |
| NUR 610 | Clinical Scholarship \& Inquiry in Nursing | 3 |
| NUR 631 | Adult Health Practicum \& Seminar III | 4 |
|  |  | Total 7 |
| Third Year, Spring Semester |  |  |
| NUR 612 | Leadership \& Collaboration for |  |
|  | Change in Health Care | 3 |
| NUR 612 |  |  |
| PBL | Portfolio Seminar Synthesis | 0 |
| NUR 635 | Adult Health Practicum \& Seminar IV | 4 |
|  |  | Total 7 |
| Summer 3 |  |  |
| NUR 651 | Clinical Fellowship | 2 |
|  |  | Total 68 |
| ${ }^{*}$ Can be taken anytime |  |  |
| DNP: Family Nurse Practitioner |  |  |
| Course | Title C | Credits |
| First Year, Fall Semester |  |  |
| BMS 515 | Advanced Pathophysiology I | 3 |
| NUR 514 | Epidemiology \& Evidenced-Based Practice | ice 3 |
| NUR 520 | Advanced Health Assessment I | 3 |
| NUR 520L | Advanced Health Assessment Lab | 2 |
| NUR 540 | Health Promotion \& Advocacy | 3 |
|  |  | Total 14 |

NUR 512 Information Literacy \& Technology 1
NUR 518 Principles of Ethical Theory in Nursing 1
NUR 526 Laboratory Diagnosis
Total 4
Second Year, Fall Semester
NUR 530 Advanced Pharmacology 3
NUR 620 Common Problems in Primary Care
Total 9
1
NUR 528 Principles of Radiography 2
NUR 626 Complex Problems in Primary Care 3
NUR 627 Adult Health Practicum \& Seminar II
Total 9
Summer 2
NUR 532 Special Topics in Adult Pharmacology 1
NUR 639 Clinical Practice Immersion* 1
First Year, Spring Semester
BMS 516 Advanced Pathophysiology II ..... 3
NUR 516 Health Policy \& Organizational Systems ..... 3
NUR 522 Advanced Health Assessment II ..... 3
NUR 522L Advanced Health Assessment Lab ..... 2
NUR 542 Reproductive Health Problems in Primary Care 3
Total 14
Summer 1
NUR 512 Information Literacy \& Technology ..... 1
NUR 518 Principles of Ethical Theory in Nursing ..... 1
NUR 523 Pediatric Assessment ..... 1
NUR 526 Laboratory Diagnosis ..... 2
Total 5
Second Year, Fall Semester
NUR 530 Advanced Pharmacology ..... 3
NUR 620 Common Problems in Primary Care ..... 3
NUR 622 Primary Care of the Child \& Family I ..... 3
NUR 623 Family Health Practicum \& Seminar I ..... 3
Total 12
Second Year, Spring Semester
NUR 524 Principles of ECG Interpretation ..... 1
NUR 528 Principles of Radiography ..... 2
NUR 624 Primary Care of the Child \& Family II ..... 3
NUR 626 Complex Problems in Primary Care ..... 3
NUR 629 Family Health Practicum \& Seminar II ..... 3
Total 12
Summer 2
NUR 534 Special Topics in Family Pharmacology ..... 1
NUR 639* Clinical Practice Immersion ..... 1
Total 2
Third Year, Fall Semester
NUR 610 Clinical Scholarship \& Inquiry in Nursing ..... 3
NUR 633 Family Practicum \& Seminar III ..... 4Total 7
Third Year, Spring Semester
NUR 612 Leadership \& Collaboration for Change in Health Care ..... 3
NUR 612
PBL Portfolio Seminar Synthesis ..... 0
NUR 637 Family Health Practicum \& Seminar IV ..... 4
Total 7
Summer 3
NUR 651 Clinical Fellowship ..... 2
Post-master's DNP: Care of Populations Course Title ..... Credits
Summer 1NUR 512 Information Literacy \& Technology1
Total 1
First Year, Fall Semester
HM 600 Foundations of Health Care Management (Option 1) ..... 3
NUR 514 Epidemiology \& Evidenced-Based Practice ..... 3
NUR 518 Principles of Ethical Theory in Nursing ..... 1
NUR 614 Advanced Principles of Population- Based Health Care ..... 3
Total 7/10
First Year, Spring Semester
NUR 516 Health Policy \& Organizational Systems ..... 3
NUR 616 Special Topics in Advanced Practice Nursing ..... 3
OL 601 Foundations of Organizational Leadership (Option 2) ..... 3
Total 6/9
Summer 2
NUR 639 Clinical Practice Immersion ..... 1
NUR 653 Population Health Fellowship ..... 3
Total 4
Second Year, Fall Semester
NUR 610 Clinical Scholarship \& Inquiry in Nursing ..... 3
Elective ..... 3
Total 6
Second Year, Spring Semester
NUR 612 Leadership \& Collaboration for Change in Health Care ..... 3
NUR 612
PBL Portfolio Seminar Synthesis ..... 0
Elective ..... 3
Total 6
Total 33
Sexual Assault Forensic Examiner (SAFE)

This online program, offered every year, teaches health care professionals how to respond to victims of interpersonal violence.

The program is accredited by the Connecticut Nurses Association and offered by Quinnipiac's School of Nursing.

This program requires two on-campus meetings. Attendance is mandatory to successfully complete this course.

## Student \& Campus Life

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# Mount Carmel Campus, Carl Hansen Student Center, Room 214 York Hill Campus, Rocky Top Student Center, Fourth Floor 

Administrative Officers<br>Vice President \& Dean of Students<br>Associate Vice President for<br>Student Services<br>Associate Vice President for<br>Student Affairs<br>Dean for Graduate Student Affairs<br>Associate Vice President for Student Affairs \& Director of Residential Life<br>Assistant Dean for Student Affairs<br>Director of Student Health Services<br>Assistant Dean of Student Affairs<br>\& Director of Campus Life<br>Director of Community Service<br>Director of Campus Ministry

|  | Office <br> SA | Phone <br> $203-582-8721$ |
| :--- | :--- | :--- |
| Carol Boucher | SA | $203-582-8722$ |
| Monique Drucker | SA | $203-582-8723$ |
| Gina Frank | SA | $203-582-3542$ |
|  |  |  |
| Cindy Long Porter | SA | $203-582-8722$ |
| Seann Kalagher <br> Kathryn Macaione | SA | $203-582-5213$ |
|  | Irma | $203-582-8738$ |
| Daniel Brown | SC | $203-582-8110$ |
| Vincent Contrucci | AC | $203-582-5351$ |
| The Rev. Hugh Vincent Dyer | SC | $203-582-8257$ |

## Division of Student Affairs

The Division of Student Affairs is a composite of programs designed to facilitate student development, which Quinnipiac University comprehends as the application of human development concepts as they relate to college students. Human development is a life process leading to the development of selfdetermination and self-direction for more effective behavior. Students are viewed as collaborators with the faculty and administration in the process of learning and growing. The Division of Student Affairs consists of the following departments: the Department of the Student Center and Campus Life, campus ministry, counseling, residential life, the dean's office, graduate life and student health services.

Student Affairs staff oversees a variety of services including student conduct; alcohol and drug education; diversity education; new student orientation and community service.

The Division of Student Affairs, located on Bobcat Way on the Mount Carmel Campus, is a central resource area for students requiring assistance with any issues or concerns, or questions relating to student life. The vice president and dean of students and associate vice presidents have offices here, as well as the residential life staff.

## Student Resources and Services

## Career Services

Quinnipiac University offers an array of career services specifically geared to students in each of the schools. These services include: individual career counseling and advising sessions; assistance with resume/cover letter writing and other job search correspondence; interview practice and preparation; connections with alumni and employers; career fairs, panels and workshops; job and internship listings and strategy sessions; graduate school information; and school-specific career information. Please contact the assistant dean for career services in the appropriate school for further information and view the career services website: www.quinnipiac.edu/x361.xml.

## Services for International Students

Quinnipiac is committed to ensuring that multicultural and international students have a successful educational experience. For further information and assistance, please contact the Office of Multicultural and Global Education at 203-582-8939.

## Counseling Services

Counseling is available to undergraduate and graduate students on an individual and group basis. The Health and Wellness Center office is open Monday through Friday and services are offered free of charge. Counseling services also are offered through the summer on a limited basis. Students wishing to make an appointment must complete an intake form, which is available online or in the office. Once the intake form is received, an appointment is scheduled. In cases of emergency, students are seen as quickly as possible. The telephone number for the office is 203-582-8680.

## Community Service

The Office of Community Service develops a number of opportunities throughout the year to engage students in community service. Activities include publishing a directory of local nonprofits, alerting the community to specific nonprofit requests for service, and the Lives of Commitment Program. The Office of Community Service and the Albert Schweitzer Institute offer alternative break pro-
grams that engage students in community service during spring break in a variety of national and international locales. Students also may work with a local nonprofit organization for work-study employment. Many student clubs and organizations perform service including Community Action Project and Habitat for Humanity. Students interested in regular community service opportunities are encouraged to join a student organization.

## Student Health Services

## Mount Carmel Campus

Located in the Health and Wellness Center on Bobcat Way, Student Health Services is staffed by registered nurses 24 hours a day, seven days a week while students are in residence. A full-time physician, board certified in both emergency and internal medicine, is available 30 hours per week, Monday through Friday. The highest priority of the staff is meeting the emergent health needs of the student population and providing ongoing health education opportunities as an integral part of the college experience. All questions should be directed to Student Health Services at 203-582-8742.

Services are available only to students who have completed the Student Health Services online medical history and the online immunization form. The Student Health Services Physical Examination Form must be downloaded and taken to your health care provider for completion. The results of a pre-entrance physical examination that was administered by a licensed advanced practice nurse, a physician assistant, a DO or an MD no more than one year before entrance to Quinnipiac must be mailed to the SHS office. These forms serve as a basis for health counseling and for decisions about physical activities in which students can engage. Students who do not comply are not permitted to register, including preregistration for the second semester. The information provided becomes the basis for the student's confidential medical record within Student Health Services.

All charges for referrals, diagnostic procedures and lab work will be billed directly to the student at his/her home address. Quest Diagnostic Laboratory is the default laboratory where all specimens are sent unless the student advises the health care provider otherwise. Student Health Services does not participate in third-party billing. To process bills for insurance reimbursement follow the instructions on the bill.

Required immunizations are:

- Meningitis immunization (required of anyone living in campus-owned housing)
- Two MMR (measles, mumps and rubella)
- TB screening, per guidelines listed on the form
- Two Varicella (or proof of the disease)
- Vaccination against Hepatitis B is strongly recommended and may be required by certain clinical programs.
Quinnipiac University, along with Gallagher Koster, has developed a health insurance plan especially for students. The plan provides coverage for illnesses and injuries that occur on and off campus and includes special cost-saving features to keep the coverage as affordable as possible.

This is a hard waiver program, which means that all students MUST maintain major medical insurance. A student may waive health insurance coverage if he or she presents evidence of other health insurance under a plan that provides benefits equal to or greater than the Quinnipiac University Student Health Insurance Plan. Students must document evidence of coverage and make an online waiver decision by the waiver deadline of June 15. For additional information regarding the plan, please visit: www.gallagherkoster.com.

A nominal fee is charged for gynecological exams and contraceptive supplies. Routine services and supplies are provided without charge. Prescriptions may be taken to local pharmacies to be filled at the usual and customary fee.

An allergy clinic is offered to students who are engaged in allergen immunotherapy prior to coming to Quinnipiac. The allergist of a student wishing to participate in this program must review and sign two forms: an allergy instruction form and an allergy treatment form. These forms are available in Student Health Services and can be downloaded from the website or mailed or emailed to students who will be participating in the program. In addition, students must make an appointment with the allergy nurse for administration of their extract.

Class excuses are not issued to students. Students who are ill are expected to contact their respective professors to inform them of their illness. Professors may phone Student Health Services to verify this information and will be told the student was or was not seen by a professional staff member. Particulars of student visits are not shared with anyone except parents/legal guardians at the discretion of the professional staff. Parents or legal
guardians are notified of serious illness and emergencies at the discretion of the professional staff. For additional information, visit the Student Health Services website at https://myq.quinnipiac.edu. Click on the Student Life tab at the top of the page.

## York Hill Campus

Student Health Services also has a location on the York Hill Campus, on the first floor of the Rocky Top Student Center. This facility is open for specified hours each day, Monday through Friday. A physician assistant, under the direction of the Student Health Services medical director, is available during these hours. Again, services are available only to those students who have submitted the required information as outlined above. The highest priority of the York Hill facility will be to meet the emergent health needs of the student population residing at York Hill. This does not mean that students from any campus who have fulfilled their obligations to Student Health Services cannot use the facility. Allergy injections and gynecological exams are provided on the Mount Carmel Campus only.

## Department of Public Safety

The Department of Public Safety provides the following services for the campus community:

- Patrol of the campus 24 hours a day, seven days a week. All security staff members receive yearly inservice training. The two main campus entrances (New Road and Mount Carmel Avenue) are staffed 24 hours/day, 365 days a year.
- Response to all requests for assistance, including all emergencies; assistance at medical emergencies; investigation of all complaints; and completion of written follow-up reports.
- Regular checks of all residential and academic buildings.
- Escort service (walking escort) 24 hours a day, seven days a week.
- Security for all student and Quinnipiac campus events.
- Maintenance of a working relationship with local law enforcement agencies and other emergency service agencies on matters related to the security and safety of the campus.
The Department of Public Safety can be reached at 203-582-6200.


## Department of the

 Student Center and Campus LifeIn supporting the mission of Quinnipiac University, the Department of the Student Center and Campus Life aims to offer students exceptional programs, services and opportunities that enhance the academic experience while developing independent thinkers and effective leaders in college and beyond.

## The core values of the Department of the Student Center and Campus Life are:

Supporting a strong sense of community by...

- Creating an environment that values a diverse student body.
- Maintaining facilities that sustain the growth of group collaboration and peer interaction.
- Transitioning students into the University through the orientation program.
- Offering a wide range of social and educational programming.
- Advising more than 80 student organizations.

Promoting critical thinking by...

- Exposing students to new, unique and diverse experiences.
- Meeting regularly with students to pose questions, raise concerns and provide guidance.
- Encouraging and evaluating students' personal and group goals.
- Helping students analyze multiple points of view on a local and global scale.
- Engaging students in a comprehensive leadership development program.

Fostering individual responsibility by...

- Educating students on appropriate and inclusive methods of communication.
- Helping students develop their character and ethical compass.
- Holding students accountable for their decisions and actions.
- Encouraging students to be mindful of their personal health and well-being.
- Modeling compassion and empathy in relationships with peers, students and colleagues.

The Department of the Student Center and Campus Life is located on the Mount Carmel Campus in the Carl Hansen Student Center, room

202, and the fourth floor of the Rocky Top Student Center on the York Hill Campus and can be reached at 203-582-8673.

## Clubs and Organizations

The Department of the Student Center and Campus Life is available to assist all student organizations and campus groups in program development and implementation of cocurricular activities. The staff, in conjunction with other student affairs personnel, provides a support system to foster personal growth and social competency through the development of group activities.

Additional information and guidelines for organizations, as well as procedures for initiating new clubs, are available at the Quinnipiac University Student Handbook and in the Department of the Student Center and Campus Life. All policies and guidelines pertaining to organizations are subject to the interpretation of the Department of the Student Center and Campus Life, upon consultation with the vice president and dean of students.

The following list represents organizations that exist and are active on campus. For a detailed description of each organization, refer to the Quinnipiac Student Handbook available online.

## Organization Name

A Cappella Group
Accounting Society
ALANA + I Mentoring Program
Albert Schweitzer Institute Club
Alpha Chi Omega
Alpha Delta Pi
Alpha Phi Omega
American Marketing Association
Anime Club
Asian and Pacific Islanders Student Association (APSA)
Association to Maximize Italian Cultural Influence (AMICI)
Athletic Training
Behavioral Neuroscience Club
Black Student Union (BSU)
BRANCHES Campus Ministry
The Chronicle
The College Group at QU
Community Action Project (CAP)
Computer Information Systems Club (CIS)
Dance Company
Dance Fusion
Delta Tau Delta
Diagnostic Imaging Society

Economics and Finance Club
Gay, Lesbian and Straight Supporters (GLASS)
Global Affairs Association
Habitat for Humanity
Hillel
History Club
Interactive Digital Design Organization
Interfraternity Council
International Business Society
International Club
Investment Club
Invisible Children
Kappa Alpha Theta Fraternity
Kick Line
Lambda Pi Eta Society (Communications Honorary)
Latino Cultural Society (LCS)
Montage
Muslim Student Association (MSA)
Panhellenic Council
Paws and People
Pep Band
Phi Sigma Sigma
Physical Therapy Club
Pi Beta Phi
Pi Kappa Phi
Pi Theta Epsilon (OT Honorary)
Praise "2" Him Ensemble
Pre-Health Professions Society
Pre-Law Society
Psychology Club
Public Relations Student Society of America (PRSSA)
Q30
QU Cycling Club
QU Golf
QU Interactive Design
QU Legends
QU M.U.S.I.C.
QU Photography Club
QU Snow
QU Spirit
Quinnipiac Ballroom Society
Quinnipiac Bobcat Sports Network
Quinnipiac Christian Fellowship
Quinnipiac Film Society
Quinnipiac Future Teachers Organization
Quinnipiac Hellenic Society
Quinnipiac Running Club
Quinnipiac Student Nurses' Association (QSNA)
Quinnipiac Young Americans for Liberty
Quinnipiac University After Dark (QUAD)
Quinnipiac University Chess

Quinnipiac University College Chapter, National Association of
Advancement of Colored People (NAACP)
Quinnipiac University Commuter Student Council
Quinnipiac University Democrats
Quinnipiac University Game Club (QU Game Club)
Quinnipiac University Irish Club (QUIC)
Quinnipiac University Outreach Through Expression (QUOTE)
Quinnipiac University Paintball Club
Quinnipiac University Republicans
Quinnipiac University Social Media (QUSM)
Quinnipiac's Big Event (SGA \& CAP)
Quinnipiac's Knights of Columbus Council No. 14277
QuinniPR
Quixotic
Relay for Life
Residence Hall Council (RHC)
Roots and Shoots
Rotaract
Sideline Cheer
Sigma Gamma Rho
Sigma Phi Epsilon
Society for Anthropological Research
Society, Justice and Life Club
Society of Professional Journalists (SPJ)
South Asian Society (SAS)
Step to Perfection
Student Alumni Association (SAA)
Student Government Association (SGA)
Student Occupational Therapy Association (SOTA)
Student Programming Board (SPB)
Student Veteran Organization (SVO)
Students for Education Reform
Students for Environmental Action (SEA)
Students in Free Enterprise (SIFE)
Students of Philosophical Hypothesis in Academia (SOPHIA)
The Summit Yearbook
Tau Kappa Epsilon
Ultimate Frisbee 101
Undergraduate Physician Assistant Club
VITA (Pro-Life Awareness)
Women In Support of Humanity (WISH)
WQAQ (98.1FM)

## Student Centers

The Department of the Student Center and Campus Life manages the Carl Hansen Student Center and Rocky Top Student Center.

## Carl Hansen Student Center

This multipurpose facility located on the Mount Carmel Campus provides opportunities for the Quinnipiac community to come together in a relaxed atmosphere and also offers a variety of services and functions for all members of the Quinnipiac community which include:

## Dining Hall

The Mount Carmel Dining Hall is open for breakfast, lunch, dinner and snacks for all students and members of the Quinnipiac community. The hours are Monday through Friday, 7:15 a.m. to 9 p.m.; Saturday, 9 a.m. to 7 p.m. and Sunday, 9:30 a.m. to 7 p.m. Details of the dining service are available from the business office. The facility also includes rooms that may be converted to private dining rooms for receptions and special meetings.

## Banking

TD Bank operates a full-service branch on the first floor of the Carl Hansen Student Center. The branch is equipped with a 24 -hour automated teller machine that is part of the Cirrus, NYCE and PLUS networks. The branch is staffed with two representatives who are available to provide a full range of products and services Monday through Thursday, 9 a.m. to 8 p.m.; Friday, 9 a.m. to 6 p.m.; Saturday, 10 a.m. to 4 p.m.; and Sunday, 11 a.m. to 2 p.m. The representatives can be reached by phone at 203-287-5109.

TD Bank's main office is located at 2992 Dixwell Avenue in Hamden (near the old Town Hall and Brown Stone House Restaurant). The telephone number for the office is 203-287-4991.

## Bookstore

The bookstore, open to the Quinnipiac community and the public, is located in the rotunda of the Carl Hansen Student Center, between the post office and the bank. The bookstore carries textbooks, general books, school supplies, insignia giftware, greeting cards, snacks, as well as health and beauty aids.

The store hours are Monday through Thursday, 9 a.m. to 8 p.m.; Friday, 9 a.m. to $4: 30$ p.m.; Saturday, 11 a.m. to 3 p.m. The bookstore is closed on Sundays.

## Campus Ministry

The Office of Campus Ministry provides spiritual and pastoral counseling, worship, sacraments and celebratory activities. A full-time priest, rabbi and Muslim chaplain are on staff, as well as a part-time protestant minister who represent their own faith communities, and are the spiritual representatives at University gatherings such as Commencement and Convocation. The chaplains strive to create an environment that will enhance religious and spiritual awareness. The Rev. Hugh Vincent Dyer's office is located on the second floor of the Carl Hansen Student Center in room 205. He can be reached at 203-582-8257. Rev. Susan Fowler, PhD , is the University's protestant minister. Her office is located on the second floor of the student center, room 202J. She can be reached at 203-5826477.

Shamshad Sheik is the Muslim chaplain. Her office is located on the second floor of the student center, room 202L. She can be reached at 203-582-6479.

Rabbi Reena Judd's office and all Jewish events are held at Quinnipiac's Hillel House, located on New Road. For more information about Hillel, contact Rabbi Reena Judd at 203-582-8206 or email reena.judd@quinnipiac.edu.

## Campus Reservations

The centrally located Campus Reservations and Information Center is a resource for the Quinnipiac community and visitors. The staff provides information pertaining to campus events and directions for procedures unique to student activities. Requests for room reservations must be made online at www.quinnipiac.edu. Click on the MyQ link at the top of the page.

## Commuter Lockers

There are commuter lockers conveniently located on the second floor. Lockers are available at the beginning of the academic year on a first-come, first-served basis. Interested commuter students should call the Campus Reservation and Information Center at 203-582-8351 for details.

## Office Locations

The Carl Hansen Student Center is home to several offices for student organizations such as the Student Government Association, the Student Programming Board, Quinnipiac University After Dark, student media groups and fraternity and sorority life. The newly expanded student center also houses a multipurpose room, media center and several meeting rooms.

## Post Office

The post office, located on the first floor of the Carl Hansen Student Center, is open Monday through Thursday, 9 a.m. to $4: 45$ p.m.; and Friday, 11 a.m. to 4 p.m. All resident students are assigned boxes.

## Rocky Top Student Center

Opened in Fall 2010, the Rocky Top Student Center serves as the living room for the York Hill Campus. The lodge-inspired design, which uses 10 different types of wood, instantly transports students and community members with expansive vistas of New Haven and Long Island Sound. It is easy to marvel at the attention to detail in every aspect of the Rocky Top Student Center as students are surrounded by 293 representations of the Quinnipiac mascot.

## Banking

The Rocky Top Student Center at York Hill Campus has an ATM for use during normal business hours.

## Office Locations

The fourth floor is home to the Department of the Student Center and Campus Life, Office of Residential Life, an organizational suite for student use and two conference rooms. There is also an office for the associate director of fitness and wellness.

## Technology Counter

The Technology Counter (Computer Help Desk), located on the second floor, provides technology assistance and repair for students with questions or issues. The desk is staffed Monday through Thursday from noon to 10 p.m.; Friday, 8 a.m. to 4 p.m., and Saturday and Sunday, noon to 4 p.m.

## Dining Hall

Rocky Top Dining Hall operated by Chartwells Dining Services is located on the second floor of the building, and features five culinary stations for students and visitors to enjoy. Each meal is prepared to order to meet individual specifications. Choose from the deli, salad bar, pizza kitchen, home-cooked meals, and Outtakes to-go salads and sandwiches. The dining hall is open Monday through Friday, 9 a.m. to 9 p.m., and SaturdaySunday, from 10 a.m. to 2 p.m. and 4 p.m. to 6:30 p.m.

## Student Health Services

Student health services are available on the first floor of the building. Health care professionals are on-call 24/7 and students can drop in or make an appointment by presenting their QCard. See MyQ for hours.

## Public Safety

York Hill Public Safety offices are located on the first floor of the Rocky Top Student Center and students can call or drop in to address any questions or concerns.

## Fireplace Lounge

The Fireplace Lounge features a cozy arrangement of plush chairs and a large coffee table available for students to catch up with friends, grab a quick lunch or spend some time on their course work. This section of the Rocky Top Student Center is augmented by additional seating areas on each end, and large-screen televisions broadcasting the latest QU news and events on campus.

## The Den

The Den at Rocky Top is the largest space in the building and can be reserved for functions of up to 125 people. The space traditionally features large tables perfect for a dinner event, but can also be converted to accommodate a dance-floor or informational fair. For more information about reserving a room in the Rocky Top Student Center, contact the Information and Reservation secretary on the Mount Carmel Campus, or use the room selection tool through MyQ .

## Residential Life

Living on campus is one of the many learning experiences at Quinnipiac. Students have the unique opportunity to live with students from a variety of diverse backgrounds. Quinnipiac believes that the experience of living on campus is enhanced by tolerance, respect for others, and regard for the standards of good citizenship.

Quinnipiac places great emphasis on the individual student and his or her overall development, in addition to academics. The residential life program is committed to providing students a supportive and inclusive living environment that enriches their educational experience.

The department is guided by four core values: community, diversity, service and responsibility. All professional and paraprofessional staff work to develop and implement programs and policies that create a community conducive to this philosophy.

Quinnipiac housing is guaranteed for three years for incoming freshmen. More than 4,000 students live in University housing, which includes traditional residence halls, suites, townhouses, apartments and single-family homes.

## University-Owned Housing

The University offers a variety of student housing options. Students progress toward more independent living from year to year.

The majority of first-year students are housed in traditional residence halls in doubles or quads with community bathrooms in Irmagarde Tator Hall, Dana English Hall, The Commons or The Ledges. Other first-year students may live in suitestyle housing with four double bedrooms, a shared common room and bathroom in Larson College Hall, Perlroth Hall, and Judge Philip Troup Hall.

Sophomores choose between suite-style housing offered in The Village, and the upper floors of Mountainview or apartments in The Hill and The Complex. The units in the Village, Hill and Complex all have three bedrooms, while Mountainview offers four bedrooms. Each suite or apartment includes a shared common room and bathroom.

Juniors can choose to live on the York Hill Campus in apartment-style housing offered in the Crescent, Westview or Townhouses. Apartments provide two to four bedrooms, a furnished living room, oversized bathroom and a kitchen.

Seniors may select from available apartmentstyle housing at Eastview, Whitney Village and University-owned houses. Most seniors have single bedrooms and all have an extended housing contract. Students living in University-owned houses are minutes away from the Mount Carmel and York Hill campuses.

Graduate housing is available on a first-come, first-served basis. Students have single bedrooms in our University-owned houses and apartments at Whitney Village.

## Bobcat Den

Located on Bobcat Way on the Mount Carmel Campus, the Bobcat Den is a place where students, faculty, staff and their guests gather to relax and socialize.

## Athletics and Recreation

Director of Athletics \& Recreation Jack McDonald<br>203-582-8621<br>Office located in Athletic and Recreation Center Mount Carmel Campus

Quinnipiac recognizes the importance of athletics and recreation in student life. The University supports 21 highly competitive, Division I intercollegiate teams and a number of spirit groups including pep band and several dance groups. The campus recreation program, with access to a fully equipped fitness center, consists of intramurals, physical education classes for academic credit, aerobics and many leisure-time offerings.

## Athletics

Intercollegiate athletic teams for men include baseball, lacrosse, soccer, cross country, ice hockey, basketball and tennis. Women compete in tennis, softball, basketball, lacrosse, field hockey, soccer, cross country, ice hockey, indoor and outdoor track, golf, acrobatics and tumbling, rugby and volleyball. Quinnipiac is proud of past champions who have been honored by selection to AllConference and All-America teams and drafted by professional teams.

Quinnipiac has full memberships in the following NCAA Division I conferences: Northeast Conference ECAC Men's and Women's Hockey ECAC Lacrosse

## Spirit Groups

Several spirit groups lend their support to winter athletic teams. The Quinnipiac pep band, Boomer the Bobcat (mascot), Crazy Bobcats, and several dance groups (Dance Fusion, Kickline, Step to Perfection) perform at basketball and hockey events.

## Campus Recreation

## Intramural Program

The Quinnipiac intramural program offers a variety of competitive sports activities in a recreational setting. Participants have freedom of choice, equality of opportunity and responsibility for sharing in the planning, supervision and administration of their sports programs. Participants create their own teams, select their level of competition, and vie for coveted championship T-shirts. Nearly 75 percent of the student body participates in one or more intramural activities.

The intramural director and student staff compute daily league standings, scoring leaders, outstanding players and officials of the week.
Intramural offerings include:

- basketball (5-on-5 and 3-on-3)
- dodgeball
- field hockey
- flag football
- kickball
- soccer (indoor, outdoor)
- tennis (men's, women's, and mixed doubles)
- ultimate frisbee
- volleyball (4-on-4, and 6-on-6)
- wiffle ball

For more information about intramural sports, visit the website at www.quinnipiac.edu/x367.xml.

## Physical Education Elective Course Credit

Students can earn course credit while learning skills needed to participate in a lifetime of leisure health and fitness activities.
Physical education offerings include:

- advanced golfer's weekend institute
- advanced tennis weekend institute
- aerobics
- ballroom dancing (beginning/intermediate)
- beginning golf
- beginning tennis
- canoeing weekend
- cardio kickboxing
- cardio pump
- dance-salsa
- fitness and nutrition
- fresh water fishing weekend
- fundamentals of boxing and kickboxing
- indoor rock climbing
- integrated strength training
- intramural officiating
- PE in the elementary school
- Pilates
- recreation games weekend
- rocks and ropes campout weekend
- sailing weekend
- spinning
- weight lifting for body builders
- yoga

Each class is valued at 1 academic credit. Students may earn up to 6 credits toward graduation.

## Aerobic/Activity Classes

Campus Recreation offers a full schedule of free lunchtime and evening activities taught by certified instructors. Activities include aerobic kickboxing, step aerobics, body sculpting, "Butts, Guts, Thighs," fencing, self-defense and yoga.

Classes usually begin during the second week of the fall semester and spring semesters. Classes are not scheduled during summer. The schedule is emailed to the Quinnipiac community and copies are available on the recreation website, outside the studio and in the fitness centers.

For more information about fitness and aerobics classes, visit www.quinnipiac.edu/x369.xml.

## Open Recreation

"Open Rec" hours are scheduled in both the Recreation Center and Burt Kahn Court on Mount Carmel Campus. Quinnipiac community members are encouraged to walk or jog on the track; and to play basketball or volleyball in the Recreation Center. Hours are posted beside the entrance doors of each facility.

## Athletic and Recreation Facilities

## TD Bank Sports Center

The TD Bank Sports Center is a state-of-the-art, 185,000-square-foot facility featuring separate arenas for Quinnipiac University's NCAA Division I men's and women's basketball and hockey teams. The two arenas at the sports center are connected by a three-story structure featuring a common lobby and ticket box office, the University Club, administrative and team offices, professional-style locker rooms with student athlete lounges, conference and meeting rooms, athletic training and equipment rooms, and a strength and conditioning center. The TD Bank Sports Center is located on Quinnipiac's 250-acre York Hill Campus on Sherman Avenue, less than a mile from the Mount Carmel Campus.

## Burt Kahn Court/Gymnasium

This hardwood floor facility located in the Athletic and Recreation Center on Mount Carmel Campus serves as the competitive site for Quinnipiac University home volleyball games. The gymnasium also is used for intramurals and "open recreation." The area can be configured to accommodate simultaneously two regulation volleyball games or two intramural basketball contests.

## Recreation Center

The Recreation Center on Mount Carmel Campus has four multipurpose tennis/basketball/volleyball courts. Curtains between each court allow for a variety of activities to take place simultaneously.

## Fitness Centers

There are two fitness centers at Quinnipiac University. One is located in the Athletic and Recreation Center on the Mount Carmel Campus, and the other is in the Rocky Top Student Center on the York Hill Campus. Both have a full line of strength equipment, free weights and cardiovascular equipment including:

- adaptive motion trainers
- bicycles (recumbent, upright)
- Cybex strength equipment
- ellipticals
- freeclimbers/steppers
- treadmills

The fitness centers are open to all members of the Quinnipiac community. Prospective users must complete an online waiver. All freshman and transfer students attend an orientation outlining the rules and regulations of the facilities. After the orientation session, a validated Quinnipiac ID must be presented for entrance to the facility.

## Dance Studios

Aerobics, physical education classes, dance groups and many other campus groups all share the University's two aerobics studios. The mirrored studios each contain state-of-the-art stereo equipment for professional and student use. Each studio also is equipped with audio and video systems. Equipment for all scheduled activities and classes is provided. Mats, steps, power bars and hand weights usually are available in the aerobic studio equipment storage area.

Quinnipiac community members may "drop in" during free time to use the studios for exercising to videos, fencing, martial arts, aerobics, dance, yoga and more.

## Indoor Track

The suspended track encircles the four Recreation Center courts. Students and staff may walk and jog upstairs while games and practices are being conducted downstairs. Nine laps of the track equal one mile.

## Cardio Corners

Three of the four corners of the track have been outfitted with various pieces of cardiovascular equipment. Each corner (approx. 2,800 square feet) has treadmills, ellipticals, steppers and bikes. The fourth corner is designated as the "stretching" corner and is outfitted with mats and ab rollers.

## Multipurpose Room

A large multipurpose room is located in the southeast corner of the Recreation Center. It is available to the Pep Band, dance groups, crafts classes and other student and recreational groups.

## Outdoor Venues and Fields

Quinnipiac's outdoor athletic facilities consist of athletic fields for softball, baseball, field hockey, soccer, lacrosse, touch football, basketball, as well as six lighted tennis courts. A hitting wall and basketball court are adjacent to the Recreation Center. An artificial turf field, completed in 2005, is utilized by the Quinnipiac field hockey and lacrosse teams, in addition to intramurals.

## Sports Equipment

Quinnipiac supplies most recreation equipment, such as volleyballs, basketballs and tennis rackets. Equipment may be signed out at the reception desk with a Quinnipiac ID. Equipment is provided for all physical education classes.

## Personnel

Board of Trustees ..... 380
President's Cabinet ..... 380
Administration ..... 381
Full-time Faculty ..... 381
School of Law Faculty ..... 390
School of Medicine Faculty ..... 391
Faculty Emeriti. ..... 392

## Board of Trustees

The Board of Trustees is composed of public members, alumni, faculty and student representatives, and 12 emeriti members.

## Public Members

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Arthur H. Rice, Esq. '73, Rice, Pugatch, Robinson \& Schiller, Fort Lauderdale, FL
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Richard Silver, Esq., Silver Golub \& Teitell, Stamford, CT
Brian E. Spears, JD '92, Levett Rockwood P.C.,
Westport, CT

## Alumni, Faculty छס Student <br> Representatives

James Totten '87, President, Alumni Board of Governors
Katherine Harris, Chair, Faculty Senate
Kathy J. Cooke, Professor of History
Ben Cloutier '13, President of Student Government
Association

## Trustees Emeriti

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## Administration

Please visit www.quinnipiac.edu/administration.xml for a list of administrative personnel. This list is intended to help students and their parents obtain information about Quinnipiac University and its programs.

## Full-time Faculty

Rebecca L. Abbott (1999), Professor of Communications (BA, Dartmouth College; MA, Yale University; MFA, School of the Art Institute, Chicago)
Tracie M. Addy (2011), Assistant Professor of Biology (BS, Duke University; MPhil, Yale University; PhD, North Carolina State University)
Henry Adobor (1999), Associate Professor of Management (BS, University of Ghana; MBA, Baruch College; PhD , Concordia University)
Todd H. Ahern (2011), Assistant Professor of Psychology (BA, Oberlin College; PhD, Emory University)
Adam Aiken (2010), Assistant Professor of Finance (BS, University of North Carolina at Chapel Hill; MA, Duke University; PhD, Arizona State University)
Gary Alger (2007), Associate Professor of Education \& Director of Educational Leadership Program (BS, State University of New York at Oneonta; MS, State University of New York at Cortland; EdD, University of Bridgeport)
Nelson Alino (2009), Assistant Professor of Accounting (BS, MBA, University of Nigeria Nsukka; PhD, University of South Carolina)
Edward Alwood (2002), Professor of Journalism (BA, PhD , University of North Carolina at Chapel Hill; MA, American University)
Janice L. Ammons (1997), Professor of Accounting (BS, Virginia Commonwealth University; PhD , University of Michigan at Ann Arbor; CPA)
Luis O. Arata (1991), Professor of Modern Languages (BS, University of Pittsburgh; MA, State University of New York at Stony Brook; PhD, Cornell University)
Anthony Asare (2007), Assistant Professor of Marketing (BA, University of Cape Coast, Ghana; MBA, PhD, University of Massachusetts at Amherst)
David Atkins (2012), Assistant Professor of Communications (BA, University of Vermont; MFA, Columbia University)
Nancy J. Bagatell (2008), Assistant Professor of Occupational Therapy (BA, Indiana University; MA, PhD, University of Southern California)
Christopher Ball (2003), Associate Professor of Economics \& the István Széchenyi Chair in International Economics (BA, University of Alabama at Huntsville; PhD , Texas A\&M University)
S. Rebecca Bamford (2012), Assistant Professor of Philosophy (BA, MA, PhD, Durham University)
Charmaine A. Banach (2012), Assistant Professor of Interactive Digital Design (BFA, MFA, University of Iowa; MA, Savannah College of Art and Design)
Lisa M. Barratt (1998), Clinical Associate Professor of Physician Assistant Studies (BS, University of Connecticut; MS, St. Joseph College, Connecticut; PA Certificate, Yale University School of Medicine)
Cynthia C. Barrere (2004), Professor of Nursing \& Director of Faculty Development for Nursing (BSN, Western Connecticut State University; MA, MS, PhD , University of Connecticut)
Kevin G. Basmadjian (2004), Associate Professor of Education \& Director of the Master of Arts in Teaching Program (BA, University of Michigan; MAT, Wayne State University; PhD, Michigan State University)
Fodei Joseph Batty (2011), Assistant Professor of Political Science (BA, University of Sierra Leone; MPA, Indiana State University; MIDA, PhD, Western Michigan University)
Francis P. Bellizzi (1983), Professor of Management (BS, Boston College; MS, Fairfield University; EdD, University of Massachusetts at Amherst)
Sarah Berke (2011), Assistant Professor of Biology (BA, Augustana College; PhD, University of Iowa)
Adrienne Betz (2009), Assistant Professor of Psychology (BA, MA, PhD, University of Connecticut)
Anat Biletzki (2008), Schweitzer Professor of Philosophy (BA, MA, PhD, Tel Aviv University)
Jonathan D. Blake (2000), Professor of Computer Science (BSE, Princeton University; MS, PhD, Northwestern University)
Karen M. Bliss (2012), Assistant Professor of Mathematics (BS, Missouri University; MS, PhD, North Carolina State University)
Tania Blyth (2009), Clinical Assistant Professor of Diagnostic Imaging (BS, MHS, Quinnipiac University)
Ben J. Bogardus (2010), Assistant Professor of Journalism (BA, Johns Hopkins University; MA, University of Virginia; MS, Syracuse University)
Joan C. Bombace (1982), Professor of Psychology (BA, Quinnipiac University; MA, Southern Connecticut State University; PhD, University of Massachusetts)
Salvador L. Bondoc (2006), Associate Professor of Occupational Therapy (BS, University of the Philippines; OTD, Creighton University)
Julie Booth (2012), Clinical Assistant Professor of Physical Therapy (BA, Colby College; BS, MPT, University of Michigan)
Daryll C. Borst (1968), Professor of Biology (BS, Ferris State University; MA, Central Michigan University; PhD , University of Illinois at Urbana)
Todd Botto (2000), Professor of Athletic Training \& Sports Medicine (BS, Southern Connecticut State University; MS, PhD, University of Southern Mississippi)

Dwayne W. Boucaud (2007), Associate Professor of Biomedical Sciences (BS, PhD, State University of New York at Buffalo)
Cory Ann Boyd (2007), Associate Professor of Nursing \& Accelerated Track Coordinator (BN, St. Anselm College; MSN, Adelphi University; MEd, EdD, Teachers College, Columbia University)
Thomas C. Brady (1980), Professor \& Chair of Biomedical Sciences (BA, BS, St. Mary's College; MS, Long Island University at Southampton; PhD , University of Connecticut)
Blaine J. Branchik (2004), Associate Professor of Marketing (BA, MBA, George Washington University; PhD, Florida Atlantic University)
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Crystal Brian (2000), Professor of Theater (BA, Baylor University; MFA, PhD, University of California at Los Angeles)
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Alan S. Bruce (2001), Professor of Sociology (MA, PhD, Bowling Green State University)
Donald P. Buckley (1999), Professor of Biology (BS, MS, University of Massachusetts; PhD, Ohio University)
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Louis A. Deaett (2011), Assistant Professor of Mathematics (BS, BA, University of Rochester; PhD, University of Wisconsin-Madison)
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Adam L. Katz (2005), Assistant Professor of English (BA, State University of New York at Stony Brook; MA, Hebrew University of Jerusalem; PhD, Syracuse University)
Edward Kavanagh (2012), Professor of Biomedical Sciences (BA, Marist College; PhD, University of New Hampshire)
Lani C. Keller (2012), Assistant Professor of Biology (BS, University of Puget Sound; PhD, University of California, San Francisco)
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Sharon S. Kleinman (2000), Professor of Communications (BA, Brandeis University; MS, PhD, Cornell University)
Marie Koch (1988), Clinical Assistant Professor of Physical Therapy (BS, St. Louis University; MS, University of Houston-Clear Lake)
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Scott Lane (2008), Associate Professor of Accounting (BS, University of Massachusetts at Lowell; MS, Texas A\&M University; PhD, University of Kentucky)
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Alexander Laskin (2008), Associate Professor of Public Relations and Director of Graduate Program in Public Relations (MA, University of Northern Iowa; MBA, PhD , University of Florida)
Donna M. Latella (1996), Professor of Occupational Therapy (BS, MA, University of Connecticut; EdD, University of Bridgeport; Post bachelor's Certificate in Occupational Therapy, Quinnipiac University)
Choonsik Lee (2011), Assistant Professor of Finance (BS, Korea Advanced Institute of Science \& Technology; PhD , State University of New York at Buffalo)
Penny Leisring (2001), Professor of Psychology (BA, Connecticut College; PhD , State University of New York at Stony Brook)
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Kathy Livingston (1993), Professor of Sociology (BS, Mercy College NY; MS, Queens College; PhD, City University of New York)
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Chadwick C. Nehrt (1997), Professor of International Business (BA, University of Pennsylvania; MBA, Columbia University; PhD, University of Michigan)
Cornelius Nelan (1994), Professor of Mathematics (BA, PhD , Johns Hopkins University)
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## North Haven Campus

370 Bassett Road<br>North Haven, CT



Directions to North Haven Campus:
From I-91, take Exit 12 to Route 5/ Washington Avenue North, follow for 1.5 miles. Turn right on Bradley Street. The entrance to campus is at the end of the block.

## York Hill Campus



## To Communicate with University Offices

Switchboard: 203-582-8200
Mailing address: 275 Mount Carmel Avenue
Hamden, CT 06518-1908
Email: admissions@quinnipiac.edu
www.quinnipiac.edu
To schedule appointments and address inquiries, use the following list. If you need an individual telephone number, call the switchboard and an operator will be happy to connect you directly.

## Academic and Student Affairs, Senior Vice President

 203-582-8914
## Administrative Services

203-582-8762

| Admissions |  |
| :--- | :--- |
| Undergraduate | $203-582-8600$ |
| Graduate | $203-582-8672$ |
| Part-time Students | $203-582-8612$ |
| School of Law | $203-582-3400$ |

Alumni
203-582-8610
Arts and Sciences, College of
203-582-8730
Athletics and Recreation
203-582-8620
Bursar
203-582-8770
Business, School of 203-582-8720

Communications, School of 203-582-3498

Development
203-582-8660
Education, School of
203-582-3354
Facilities
203-582-8665
Financial Aid
Undergraduate
Graduate
203-582-8750
School of Law
203-582-8588
203-582-3405

Health and Wellness<br>Counseling Services 203-582-8680<br>Student Health Services 203-582-8742<br>Health Sciences, School of 203-582-8710<br>\section*{Information Services}<br>203-582-3797<br>Law, School of<br>203-582-3200<br>Learning Center<br>203-582-8628<br>Library<br>Circulation Desk 203-582-8634<br>Secretary 203-582-8632<br>Media Services<br>203-582-4444

Multicultural and Global Education, Office of 203-582-8425

Frank H. Netter MD School of Medicine 203-582-3797

Nursing, School of
203-582-8385
Public Affairs
203-582-8655
Public Safety
203-582-6200
QU Online
877-403-4277

## Registrar

203-582-8695
Residential Life
203-582-8666

## Rocky Top Student Center

203-582-7872
Student Affairs
203-582-8735
Student and Career Services
203-582-3215
Student Center and Campus Life
203-582-8673 (Mount Carmel Campus)
203-582-7225 (York Hill Campus)

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## Undergraduate Courses

## Accounting (AC)

AC 211 Financial Accounting ( $\mathbf{3}$ cr.) This course introduces students to the purposes of financial statements and the recognition, measurement and disclosure concepts and methods underlying financial statements. Students begin to use and interpret financial statements and the related impact of elementary transactions and events on those statements. Minimum grade for accounting majors B-. Prerequisite: MA 107, MA 110, MA 117, MA 118, MA 140 or MA 141; Every Year, Fall and Spring

AC 212 Managerial Accounting (3 cr.) This course is an introduction to the uses of accounting information by managers for internal reporting and decision making. Students begin to focus on classifying, measuring and analyzing product and service costs for decision making, budget preparation and performance evaluation. Minimum grade for accounting majors B-. Prerequisite: AC 101 or AC 211; Every Year, Fall and Spring

AC 305 Intermediate Accounting I (3 cr.) Students study the conceptual framework, standards, roles of stan-dard-setting bodies, and presentation of financial statements. Topics include the recognition, measurement and reporting of cash, receivables, inventories and plant, property and equipment. Students prepare journal entries. Students also examine U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) for financial reporting. Minimum grade for accounting majors B-. Prerequisite: AC 101 or AC 211; Every Year, Fall and Spring

AC 306 Intermediate Accounting II (3 cr.) This continuation of AC 305 covers such topics as stockholders' equity, earnings per share, revenue recognition accounting changes and correction of errors. Accounting for investments, income taxes, leases and pensions also are covered. In addition, the content, structure and usefulness of the statement of cash flows are reviewed. Minimum grade for accounting majors B-. Prerequisite: AC 305; Minimum grade B-; Every Year, Fall and Spring

AC 323 Cost Accounting ( $\mathbf{3} \mathbf{~ c r}$.) This class includes an in-depth treatment of accounting theories and practices used to control and manage costs. Topics include joborder, process, activity-based costing systems, cost variance analysis, budgeting, cost-volume-profit analysis and product mix decision. Prerequisite: AC 102 or AC 212; Minimum grade C-; Every Year, Spring

AC 335 Accounting Systems ( $\mathbf{3}$ cr.) This class is an introduction to the use of information technology in accounting systems. Topics include design, development, implementation, control and audit of information systems used to generate and manage accounting information. Prerequisite: AC 102 or AC 212; Minimum grade C-; Every Year, Fall and Spring

AC 402 Accounting Internship ( $\mathbf{3}$ cr.) This internship is open to accounting majors. Students must complete the internship application form to receive credit. This course is graded on a pass/fail basis. A minimum of 150 hours is required. Every Year, All

## AC 405 Advanced Accounting International

 Operations and Other Entities (3 cr.) This course provides an in-depth study of accounting principles and analysis of problems for business combinations (mergers and acquisitions), international operations and segmented reporting, SEC reporting and accounting for derivatives and hedging activities. Students learn standardrelated research skills and complete a research project using the FASB codification database. Minimum grade for accounting majors C-. Prerequisite: AC 202 or AC 306; Minimum grade B-; Every Year, Fall and SpringAC 411 Auditing Theory and Practice ( 3 cr .) Focusing on auditing standards and audit practice, the course includes an examination of auditor independence and ethical responsibilities, audit risk, audit evidence, internal controls, development of an overall audit plan and detailed audit programs. Minimum grade for accounting majors C-. Prerequisite: AC 305; Minimum grade B-; Every Year, Fall and Spring

AC 412 Advanced Auditing ( 3 cr .) This continuation of AC 411 includes discussion of the steps necessary to complete an audit engagement, research using authoritative audit pronouncements and how to use audit software. The course introduces students to fraud auditing, legal liability issues faced by auditors and types of assurance services other than audits. Prerequisite: AC 411; Minimum grade C-; Every Year, Spring

AC 431 Federal Income Tax Procedure (3 cr.) This course examines the theory and problems of federal income taxes with emphasis on individual tax returns. Prerequisite: AC 212; Minimum grade C-; Every Year, Fall

AC 432 Advanced Federal Income Tax Procedure (3 cr.) This continuation of AC 431 considers applications of federal and state tax laws to partnerships, corporations, estates and trusts. Students should be able to analyze information and identify data relevant for tax purposes, identify and research issues, elections and alternative tax treatments. Prerequisite: AC 431; Minimum grade C-; Every Year, Spring

## Anthropology (AN)

AN 101 (UC) Introduction to Cultural Anthropology ( 3 cr ) This introductory course provides a broad overview of cultural anthropology, giving students the tools to understand, speak and write about human diversities and similarities cross-culturally. Course materials emphasize issues of race, ethnicity, class and gender, making visible for students the inequalities and power dimensions embedded in societies throughout the globe. Every Year, All

AN 102 (UC) Introduction to Biological Anthropology ( 3 cr ) In this course, students explore human origins and modern human diversity from an evolutionary perspective. Participants begin with the processes of evolution and natural selection, along with the mechanisms of genetic inheritance at the molecular level. Next they focus on our closest living relatives, the non-human primates, and then discuss the evidence for primate and human evolution found in the fossil record. The course concludes by exploring the origins of modern human diversity and the evolution of language. Every Year, All

AN 103 Archaeology ( $\mathbf{3} \mathbf{c r}$.) This course introduces students to the social science of archaeology, one of the four subdisciplines within anthropology. Students explore the history and methodology of archaeology, human evolution and adaptation, the relationship between humans and the natural environment, and the interpretation of archaeological data. The ethics of doing archaeological fieldwork and the contemporary debates within the discipline also are discussed. Every Year, All

## AN 222 (UC) Indigenous Peoples of North America

( 3 cr .) Students are introduced to the diversity of indigenous cultures as they changed and transformed from the time of human migration to the North American continent to today. There is particular emphasis on the contact period with European explorers and settlers. Attention is focused on the contemporary lives of indigenous peoples, including people living on reservations and in urban areas, with regard to the unique place they occupy in society and history and their continuing struggles for recognition and equality. Every Other Year, All

## AN 223 Latin American Societies and Cultures

(LAS 223) (3 cr.) The course explores the diversity of Latin American cultures and societies throughout North and South America as well as in the Caribbean, and traces the history of European and African encounters with the indigenous peoples living in the New World. An emphasis is placed on the events and forces that influence today's cultural and social traditions. Every Other Year

AN 230 Anthropology of Film and Culture (3 cr.)
This course focuses on the use of ethnographic film as a professionally objective vehicle for interpreting, defining and communicating about human behavior. Students apply their knowledge of anthropological concepts and theory to a series of films as a way of developing an integrated cultural awareness, and also to critically evaluate the filming process itself. To further the understanding of the importance of visual representation, students create their own photographic essay of an ethnographic event that they have witnessed or participated in. Every Other Year

## AN 240 Ethnographic Theory and Practice (3 cr.)

This course introduces students to ethnographic theory, method, practice and application within the discipline of anthropology. The goals are: 1) to provide students with a background of the history of ethnography; 2) to introduce students to the range of ethnographic writings in the contemporary era; 3) to encourage students to think about what ethnographic writings teach us and why they matter; 4) to compare ethnography to other forms of academic and popular writings; and 5) to consider the ethical dimensions and dilemmas of conducting ethnographic research. Prerequisite: EN 101 or QU 101; Every Other Year, Fall

## AN 289 Anthropology Elective (3 cr.)

## AN 310 Cross-Cultural Perspectives on Gender, Sex

 and Sexuality (WS 310) ( $\mathbf{3}$ cr.) This course introduces students to the social and cultural constructions of gender, sex and sexuality around the world. Students discover the way anthropologists approach these topics. They explore the constructions as they relate to notions of biology, family, households, work, migration, inequality/ inequity, economics and class status, violence, and race and ethnicity. Discussions focus on what gender, sex and sexuality are, what they mean and how they theoretically and practically matter as categories. Every Other Year, Fall
## AN 337 Anthropology of Health and Medicine (3 cr.)

 This course takes a comparative study approach by looking at the diverse ways in which societies throughout the world both define and respond to disease and illness. Special attention is paid to how differently people understand the body and its relation to illness, and the importance of cross-cultural understanding for treating and curing illness in pluralistic societies. Every Other Year, FallCourses offered as needed
AN 200 Special Topics (3 cr.)
AN 300 Special Topics ( 3 cr .)
AN 330 The Anthropology of Gender-Based Violence (3 cr.)

## Arabic (ARB)

ARB 101 Elementary Arabic I ( $\mathbf{3} \mathbf{c r}$.) This course introduces students to the Modern Standard Arabic (MSA) language and to cultures of the Arabic-speaking world. Students develop accuracy and fluency in pronunciation and writing of Arabic letters, comprehend basic vocabulary and language structures, learn to use culturally appropriate social greetings and other expressions, learn the basics of grammar, and acquire insight into the culture and diversity of the Arabic-speaking world. Every Year, Fall and Spring

ARB 102 Elementary Arabic II ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of Arabic 101. Prerequisite: ARB 101; Every Year, Fall and Spring

Courses offered as needed
ARB 103 Continuing Elementary Arabic III (3 cr.)
Prerequisite: ARB 102

## Art (AR)

AR 101 (UC) Introduction to Art ( 3 cr .) This course is a study of major art forms and a probe into the nature of the creative process and public response. The course combines art history with hands-on activities. It is intended for students who plan to take only one art course. Every Year, All

AR 102 (UC) Art History: Ancient Through Medieval ( 3 cr .) This introductory course considers art as seen in its cultural and historical context from prehistory through the medieval period. Students explore the stylistic elements that make great works typical of their era. Every Year, All

## AR 103 (UC) Art History: Renaissance Through

 Contemporary ( $\mathbf{3} \mathrm{cr}$.) This introductory course considers art as seen in its cultural and historical context from the Renaissance through the contemporary era. Students explore the stylistic elements that make great works typical of their era. Every Year, AllAR 104 (UC) Survey of Non-Western Art (3 cr.) Participants study the major themes and forms of non-Western arts from East Asia, South Asia, Africa, the PreColumbian Americas and Oceania, with emphasis on their cultural, philosophical and religious contexts. Students define works of art both formally and within the framework of their method of manufacture, audience and cultural value. They also explore aspects of various nonWestern religions, cultural considerations and influences in relation to the works. Students with little experience of or no prior courses in art history learn the basic terminology and methodology of the field. Every Year, All

AR 105 (UC) American Art (3 cr.) This introduction to painting of the United States from the earliest days to the present includes a careful analysis of representative works reinforced by visits to area art galleries. Every Year, All

AR 140 Basic Visual Design (3 cr.) This course exposes students to the basics of two-dimensional design. Topics include the elements of design, the principles of order and how these basics combine to create good composition. Every Year, All

AR 158 Photography I ( $\mathbf{3} \mathbf{c r}$.) This beginning course in still photography is designed to teach basic photographic techniques. Additional topics include lighting, advertising, fashion and portrait photography. Students must provide an adjustable still camera, film and processing. Every Year, All

AR 210The Creative Process (3 cr.) This course introduces students to the creative process in the visual arts. Students learn to evaluate and critique their personal artwork as well as the work of others to develop a working process that enables them to go from initial thought to final product. Topics include: how to expand on initial ideas, the proper use of a sketchbook, looking at and evaluating famous works of art, and how to know when a work of art is finished. Every Other Year, Spring

AR 240 Graphic Design (3 cr.) Students gain practical experience in the creation of pictorial devices used to disseminate product information, including drawing, painting, illustration and typography. Prerequisite: AR 140; Every Other Year, Spring

AR 241 Color Theory ( $\mathbf{3} \mathbf{c r}$ ) This course introduces students to the basics of color theory in design. Participants explore different topics through a series of short in-class projects and longer out of class assignments. Topics include the use of the grey scale, color mixing, color harmonies and discord, among others. Every Other Year, Spring

AR 242 Cartooning ( $\mathbf{3}$ cr.) This course provides an overview of the history of the comic and cartoon arts, and explores a variety of cartooning techniques. While studying the techniques of the masters, students plan and eventually execute their own original cartoons. This class is open to absolute beginners as well as students with previous drawing, painting and cartooning experience. Every Other Year, Spring

AR 251 Studio Art: Drawing ( $\mathbf{3}$ cr.) This studio course serves as an introduction to basic drawing skills. Subjects may include still life, landscape and portraits. Work is done in pencil, ink and other media. Every Year, All

AR 252 Studio Art: Painting (3 cr.) This studio course serves as an introduction to basic painting skills. Course work includes specialized painting techniques, color theory and assignments based on both traditional and contemporary styles. All work is completed in either oil or acrylic painting media with some mixed media components. Every Year, All

AR 253 Studio Art: Sculpture (3 cr.) This studio course introduces students to sculpture and three-dimensional design using a variety of materials. Students gain an understanding and appreciation of basic techniques and processes involved in creating sculpture and learn how a three-dimensional object impacts its environment. Every Year, All

AR 262 Studio Art: Watercolor (3 cr.) This course introduces students to the basics of watercolor. Participants explore different topics through a series of short in-class projects and longer out-of-class assignments. Topics include specialized watercolor painting techniques, color theory and assignments based on both traditional and contemporary styles. All work is completed in watercolor with some mixed media components. Every Other Year, Fall

AR 263 Studio Art: Collage (3 cr.) This hands-on studio course enables students to explore materials and techniques involved in the art of making collage. This course looks at various ways to incorporate pre-made materials into more elaborate finished projects. Participants use a variety of materials including both man-made and natural objects as well as various painting, drawing and sculpture media. Every Year, Spring

AR 303 Studio Art: Advanced Drawing (3 cr.) This advanced drawing class expands on knowledge gained in an introductory level drawing course. Topics include both traditional and contemporary techniques and advanced composition. Work is completed in various drawing materials, including charcoal, pencil, conte and ink. Prerequisite: AR 251; Every Year, All

AR 304 Studio Art: Advanced Painting ( 3 cr.) This advanced painting class enhances knowledge gained in an introductory level painting course. Specialized painting techniques include expanded color theory as well as an introduction to contemporary techniques. All work is completed in acrylic paint with some mixed media components. Prerequisite: AR 252; Every Year, All

AR 342 Illustration ( $\mathbf{3} \mathbf{~ c r}$.) This course introduces students to the art of illustration. Through hands-on assignments and demonstrations, students learn the methodology of an illustrator, including generating ideas, visualization, research, preliminary studies or roughs, comprehensives and the finished picture. A vari-
ety of relevant media, materials and techniques are explored. Course work is supplemented by lectures on historic and contemporary techniques, projects and illustrators. Prerequisite: AR 140 or AR 251; Every Other Year, Spring

Courses offered as needed<br>AR 102H Honors Art History I (3 cr.)<br>AR 250 Studio Art: Special Topic (3 cr.)<br>AR 254 Studio Art: Printmaking (3 cr.)<br>AR 255 Studio Art: Introduction to Darkroom Photography (3 cr.)<br>AR 257 AP Studio Art Introduction to Studio Methods ( 3 cr )<br>AR 280 History of Modern Design (3 cr.)<br>AR 300 Special Topics Course ( 3 cr.) Prerequisite: AR 102, AR 103, AR 104 or AR 105<br>AR 305 Special Topics in Studio Art (3 cr.)<br>AR 317 Art of the Italian Renaissance ( 3 cr.)<br>Prerequisite: AR 102, AR 103, AR 104 or AR 105<br>AR 335 Digital Photography (3 cr.)<br>Prerequisite: AR 140, AR 158 or AR 255<br>AR 360 Innovation in the Arts and Sciences (PL 360) ( 3 cr )<br>AR 380 Interactive Art (PL 380) (3 cr.)

## Athletic Training (AT)

AT 114 Introduction to Athletic Training/Sports
Medicine ( 2 cr .) This course is designed to familiarize the student with the role of an athletic trainer in sports and health care. Every Year, Spring

## AT 114L Introduction to the Clinical Environment

 ( 0 cr.) Lab to accompany AT 114. This eight-week session is required for AT majors or those considering transferring into the major. (3 lab hrs.) Every Year, SpringAT 115 Introduction to Kinesiology (3 cr.) This introductory course explores the way the musculoskeletal system produces movement patterns in humans. Musculoskeletal anatomy, joint arthrology, muscular mechanics and biomechanical principals are used to perform muscular analyses of both the upper and lower extremities and the trunk. Prerequisite: BIO 101; Every Year, Spring

AT 116 Introduction to Fitness and Conditioning (2 cr.) This introductory lab and lecture course teaches the fundamentals of basic fitness and exercise. Students engage in fitness assessments and design of personal conditioning programs for healthy subjects. For AT students only or by permission of the instructor. Every Year, Fall

## AT 201 Medical Aspects of Sports and Activity

(SPS 201) ( 3 cr .) This course is aimed at individuals who are interested in working in a sports-related field (e.g.,
coaches, journalists or managers). It provides an overview of a variety of sports medicine-related topics, including common sports injuries, an introduction to sports psychology and current events in the sports medicine. Students who take AT 201 cannot also receive credit for AT 214. Prerequisites: one group: BIO 101101L; BIO 105-105L; BIO 106-106L; CHE 101-101L; PHY 101-101L; BMS 110-110L; BMS 117-117L; BMS 118-118L; SCI 101-101L; SCI 102-102L; SCI 105-105L; Every Year, Fall and Spring

AT 210 Introduction to Evidence-Based Practice (2 cr.) Evidence-based practice in health care is the integration of the best available research with clinical expertise in the context of patient characteristics, culture and preferences. This is an introductory course in the processes associated with collecting and utilizing evidence to make clinical decisions. Prerequisite: AT 216, MA 275 or permission of the instructor; Every Year, Spring

AT 214 Care and Prevention of Athletic Injuries (3 cr.) This course is designed to provide an overview of the athletic training profession with an emphasis on the basic fundamentals utilized by the athletic trainer in prevention, recognition, care, treatment and rehabilitation of athletic injuries. Forty observation hours are required. Students who take AT 201 cannot also receive credit for AT 214. Prerequisites: BIO 102, BIO 102L; Every Year, Fall

AT 214L CPR, AED and First Aid (1 cr.) Students learn principles of first aid and complete health provider certification in cardiopulmonary resuscitation and automated external defibrillator. For AT majors only. (2 lab hrs.) Prerequisites: BIO 102, BIO 102L; Every Year, Fall

AT 215 Therapeutic Modalities ( 4 cr .) This introductory course provides students with knowledge of theory and operation of the most commonly used therapeutic devices. Prerequisites: AT 214, AT 250; Every Year, Spring

AT 215L Therapeutic Modalities Lab (0 cr.) This lab includes the practical application of therapeutic modalities and must be taken in conjunction with AT 215. (2 lab hrs.) Prerequisites: AT 214, AT 250; Every Year, Spring

## AT 216 Emergency Management of Athletic Trauma

 (3 cr.) This laboratory and lecture course teaches the basic skills and decision-making processes necessary to manage emergency medical situations common to athletic activity. Students also perform general first aid. All students are required to pass American Heart Association's CPR for the professional rescuer (or equivalent). Prerequisites: BIO 102, AT 115; Every Year, FallAT 240 Strength Training and Conditioning (AT 481) ( 3 cr ) The purpose of this course is to expand the students' knowledge of rehabilitation beyond general concepts. Students learn theory pertaining to a variety of conditioning methods including periodization, plyometric and functional training. Lifting techniques and injury prevention related to conditioning are discussed and applied to both the individual athlete and team training concepts. The course is taught as a combination of classroom and laboratory experience to ensure that students are capable of translating theory into practice. Prerequisites: AT 214, AT 330; Every Year, Fall

## AT 250 Introduction to Evaluation and Treatment of Musculoskeletal Injuries (4 cr.) This lecture and

 laboratory course provides the student with a basic systematic approach to the process of physical evaluation and exercise program development. It includes processes of history taking and physical exam techniques, indications and contraindications of exercise, and exercise progression as related to athletic injury, prevention, reconditioning and return-to-play guidelines. Prerequisites: AT 114, AT 115, AT 116; Every Year, Fall
## AT 251 Evaluation and Treatment of Lower Extremity

 Musculoskeletal Injuries (4 cr.) This lecture and laboratory course provides the student with a basic evaluation process and techniques involved in assessing musculoskeletal injuries of the lower extremity. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is placed on integrating kinesiological principals with injury/illness recognition skills and rehabilitative concepts. Prerequisites: AT 214, AT 216, AT 250; Every Year, Spring
## AT 290 Clinical Practicum I, Risk Management and

 Injury Prevention (2 cr.) This practicum introduces students to the general policies and procedures of the Quinnipiac University athletic training room. Students are instructed in taping techniques, proper medical documentation skills, ambulatory aids, the preparticipation examination, and the Quinnipiac University Emergency Action Plan. Hands-on practical experience is emphasized in class sessions. Prerequisites: AT 214, AT 216, AT 250; Every Year, SpringAT 290C Clinical Practicum I (1 cr.) During the semester, students gain 100 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.) Prerequisites: AT 214, AT 216, AT 250; Every Year, Spring

AT 330 Nutrition for Sport and Fitness (3 cr.) In this foundational course, students learn nutritional concepts
related to wellness, injury prevention and maximizing human performance. Students also explore eating disorder habits and interventions. Prerequisite: AT 290 or permission of instructor. Every Year, Fall

## AT 350 Evaluation and Treatment of Upper Extremity

 Musculoskeletal Injuries (4 cr.) Students learn the evaluation process and techniques involved in assessing musculoskeletal injuries of the upper extremity. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is placed on integrating kinesiological principals with injury/illness recognition skills and rehabilitative concepts. Prerequisites: AT 251, AT 290, AT 290C; Every Year, Fall
## AT 350L Evaluation and Treatment of Musculoskeletal

 Injuries Lab (1 cr.) This lab includes the practical application of athletic injury evaluation and rehabilitation. Must be taken in conjunction with AT 350. Prerequisite: AT 250; Every Year, Fall
## AT 351 General Medical Conditions and Treatment

 ( 4 cr.) This course enables the athletic training student to recognize, evaluate and differentiate common systemic diseases, understand appropriate pharmacological interventions, understand the principles of pharmacology and common issues that arise when specific pharmacological agents are employed. Prerequisite: AT 350; Every Year, SpringAT 351L General Medical Conditions and Treatments $\mathbf{L a b}$ ( $\mathbf{1} \mathbf{~ c r . ) ~ T h i s ~ l a b ~ i n c l u d e s ~ t h e ~ p r a c t i c a l ~ a p p l i c a t i o n ~ o f ~}$ recognizing, evaluating, differentiating and treating common medical conditions. Must be taken in conjunction with AT 351. Prerequisite: AT 350; Every Year, Spring

## AT 352 Evaluation and Treatment of the Spinal Injuries

 ( $\mathbf{3} \mathbf{c r}$.) Students learn the evaluation process and techniques involved in assessing common spinal pathologies in the athletic setting. The assessment information is then used to design and implement treatment and rehabilitative protocols. Emphasis is on the evaluation process, critical thinking, choosing appropriate treatment techniques, as well as indications and contraindications of specific spinal disorders and exercise progression as related to spinal dysfunction/disorders. Manual therapy as a treatment technique and current trends for treating spinal disorders is also covered. Prerequisites: AT 350, AT 350L; Every Year, SpringAT 352L Evaluation and Treatment of the Spinal Injuries Lab (1 cr.) This lab includes the practical application of the evaluation process of the spine and demonstration of various treatment techniques and must be taken in conjunction with AT 352. Prerequisites:
AT 350, AT 350L; Every Year, Spring

AT 390 Clinical Practicum II, Athletic Protective
Equipment (2 cr.) Students are introduced to proper fitting of athletic equipment, as well as sporting rules relevant to safety and the role of the medical professional. The course includes instruction in fabricating and applying protective equipment, such as pads, splints and supports, and advanced taping and wrapping techniques used in athletic training; hands-on practical experience is emphasized in class sessions. Prerequisite: AT 290; Every Year, Fall

AT 390C Clinical Practicum II, Clinical (1 cr.) During the semester, students gain a minimum 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.) Prerequisite: AT 290C; Every Year, Fall

AT 391C Clinical Practicum III (1 cr.) During the semester, students gain 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.) Prerequisites: AT 290C, AT 390C; Every Year, Spring

AT 440 Biomechanics ( $\mathbf{3} \mathbf{~ c r}$.) This course focuses on the advanced study of human movement, concentrating on the principles of mechanics they relate to the human body. Areas of athletic injury, pathology, sport performance, occupational risks, injury prevention, and rehabilitation are addressed. Projects are designed not only to achieve scientific insights into biomechanical problems but also to train students in state-of-the-art interdisciplinary research procedures. Kinematic and kinetic analyses are conducted. Prerequisites: BIO 211, BIO 212; Every Year, Spring

AT 440L Biomechanics Lab (1 cr.) This lab includes the practical application of biomechanics including the processes involved in data collection for forces, EMG and motion analysis data. Must be taken in conjunction with AT 440. ( 2 lab hrs.) Prerequisite: AT 250 or permission of instructor; Every Year, Spring

AT 450 Administration and Management in Athletic Training (3 cr.) Organizational and administrative procedures and considerations, as well as the legal aspects of athletic training and sports medicine are included in this course. Prerequisite: AT 390; Every Year, Fall

AT 460 Advanced Nutrition ( $\mathbf{3} \mathbf{~ c r}$ ) This advanced level food and nutrition course examines the composition and physiological role of nutrients and their relationships to health and the body. Macronutrient metabolism as well as a detailed examination of the role of vitamin and mineral metabolism are explored. Current nutrition issues of supplement use, weight management, sports
nutrition, nutritional ecology and the application of nutrition directly to food and its preparation also are addressed. Prerequisite: AT 330, NU 351, SCI 105 or SCI 161; Every Year, Spring

## AT 481 Strength Training and Conditioning for the Athletic Trainer (AT 240) (2 cr.) The purpose of the

 course is to expand the students' knowledge of rehabilitation beyond general concepts. Students learn theory pertaining to a variety of conditioning methods including: periodization, plyometrics and functional training. Lifting techniques and injury prevention related to conditioning are discussed and applied to both the individual athlete and team training concepts. The course is taught as a combination of classroom and laboratory experiences to ensure that students are capable of translating theory into practice. Prerequisite: AT 352; Every Year, SpringAT 482 Advanced Rehabilitation Options in Sports Medicine (2 cr.) This course examines in-depth rehabilitative techniques and advanced manual therapy skills for the sports medicine setting. Practical application of current concepts and research-driven rehabilitative protocols are emphasized. The course also addresses trends in sports medicine surgical procedures, research behind new rehabilitative techniques, and effective mechanisms for evaluating clinical relevance of new products. Prerequisite: AT 352; Every Year, Fall

AT 490C Clinical Practicum IV (1 cr.) During the semester, students gain 200 hours of clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.) Prerequisites: AT 390C, AT 391C; Every Year, Fall

## AT 491 Clinical Practicum V, Professional and Career

Preparation (2 cr.) This course provides students with a means to integrate and augment all concepts, skills and knowledge covered in the athletic training curriculum. Much of the course is discussion based and requires the students to be fully participative. Prerequisite: AT 490; Every Year, Spring

AT 491C Clinical Practicum V, Clinical (1 cr.) During the semester, students gain a minimum of 200 hours of supervised clinical experience. Students are required to complete specific NATA clinical competencies and proficiencies. (3 lab hrs.) Prerequisite: AT 490C; Every Year, Fall and Spring

## Biology (BIO)

BIO 101 (UC) General Biology I (3 cr.) This course considers the basic concepts of life science with emphasis on the methods of science and the role of science in society, the chemistry of life, and molecular and cellular evolution. Selected topics include cellular biochemistry, the central dogma of biology, regulation of gene expression, cell structure and function, respiration and photosynthesis, and cell cycles. An honors section lecture and lab are available. First semester of a full-year course; must be taken in sequence. Every Year, Fall and Summer

BIO 101L (UC) General Biology I Lab (1 cr.) Lab to accompany BIO 101. Selected projects develop skills in experimental design, data analysis and scientific writing. (2 lab hrs.) Every Year, Fall and Summer

BIO 102 (UC) General Biology II (3 cr.) This course covers the basic concepts of the life science with emphasis on viral and cellular reproduction, genetics, evolutionary mechanisms, phylogenetic inference, a broad taxonomic survey, and ecology. Selected topics include sexual reproduction and classical genetic analysis, microevolution, speciation, macroevolution and application of comparative anatomy and physiology to illuminate evolutionary relationships and their ecological context. An honors section of lecture and lab are available. Second semester of a full-year course; must be taken in sequence. Prerequisite: passing grade in BIO 101 and BIO 101L; Every Year, Spring and Summer

BIO 102L (UC) General Biology Lab II (1 cr.) Lab to accompany BIO 102. Selected projects develop skills in experimental design, data analysis and scientific writing. (2 lab hrs.) Prerequisite: passing grade in BIO 101 and BIO 101L; Every Year, Spring and Summer

BIO 105 (UC) Introduction to the Biological Sciences I ( 3 cr .) This course introduces natural science to the nonscientist with an emphasis on problems confronting society. Relationships between humans and the environment are included. This course is designed for nonscience majors. Every Year, Fall and Summer

BIO 105L (UC) Introduction to Biological Science Lab ( 1 cr.) Lab to accompany BIO 105. (2 lab hrs.) Every Year, Fall and Summer

BIO 106 (UC) Science and Society: Concepts and Current Issues ( $\mathbf{3} \mathbf{~ r . )}$ ) This course introduces natural science to the nonscientist with an emphasis on problems confronting society. Current health and scientific issues in the news are emphasized to help students recognize the importance of science in their daily lives. This course is designed for nonscience majors. May not be taken for credit concurrently or after completion of BIO 161.
Every Year, Spring and Summer

BIO 106L (UC) Science and Society: Concepts And Current Issues Lab (1 cr.) Lab to accompany BIO 106.
(2 lab hrs.) May not be taken for credit concurrently or after completion of BIO 161. Every Year, Spring and Summer

BIO 161 (UC) Introduction to the Biological Aspects of Science and Society ( $\mathbf{3} \mathbf{c r}$.) This course introduces natural science to the nonscientist with an emphasis on current problems confronting society. Current health and scientific issues in the news are emphasized to help students recognize the importance of science in their daily lives. This course is designed for nonscience majors. May not be taken for credit concurrently or after completion of BIO 106. Every Year, All

BIO 208 (UC) Introduction to Forensic Science (3 cr.)
This course begins with a historical overview of the discipline as a method of understanding the contemporary field of forensics. Scientific principles and practices are applied to specific examples within crime scene and evidence analysis including, but not limited to physical evidence, glass and soil, organic and inorganic substances, hair and fibers, toxicology, serology and fingerprinting. Additionally, students utilize FBI cases, popular press and television to evaluate the use of science and distinguish among science, law and entertainment. Every Year, Spring

## BIO 208L (UC) Introduction to Forensic Science

Laboratory (1 cr.) Students develop skills in observation, measurement, microscopy, glass fracture patterns, soil and footprint analysis, chromatography, spectrophotometry, hair and fiber analysis, fingerprinting and DNA analysis. The culmination of the laboratory experience involves synthesis of lecture and laboratory activities into a single class project that begins with control of a simulated crime scene and evidence search patterns, and continues through processing evidence, evidence analysis and presentation of results. (2 lab hrs.) Every Year, Spring

BIO 211 Anatomy and Physiology I (3 cr.) This advanced course provides a comprehensive analysis of human anatomy and physiology, including a detailed examination of molecular and cellular aspects of cell and organ function incorporated with system physiology in the human body. Macromolecules, receptors, membrane transport, metabolism, neural and endocrine control systems and the muscular system are discussed. Emphasis is on function and homeostasis. Relevant diseases also are presented. Primarily for students in bachelor's degree health science programs. Full-year course; must be taken in sequence. Prerequisites: BIO 101, BIO 102; Every Year, Fall and Summer

BIO 211L Anatomy and Physiology Lab I (1 cr.) Lab to accompany BIO 211. A detailed study of human anatomy utilizing both cat and cadaveric dissection. (3 lab
hrs.) Prerequisites: BIO 101, BIO 102; Every Year, Fall and Summer

BIO 212 Anatomy and Physiology II (3 cr.) This course is a continuation of BIO 211 with an emphasis on the anatomy and physiology of the major body systems. Systems studied in this course include cardiovascular, lymphatic, immune, respiratory, urinary, digestive and reproductive. Emphasis is on structure, function, interdependence and the maintenance of homeostasis. Relevant diseases also are presented. Primarily for students in bachelor's degree health science programs. Fullyear course; must be taken in sequence. Prerequisite: Successful completion of both BIO 211 and BIO 211L with a grade of C- or better; Every Year, Spring and Summer

BIO 212L Anatomy and Physiology II Lab (1 cr.) Lab to accompany BIO 212. A detailed study of the major body systems utilizing anatomical models and physiological experiments. Prerequisite: Successful completion of both BIO 211 and BIO 211L with a grade of C- or better. (3 lab hrs.); Every Year, Spring and Summer

## BIO 222 (UC) Evolution in Biology and Literature

( 3 cr .) This study of evolution as understood by biologists and of imaginative literature explores human origins, evolution and destiny. Impact of the concept of evolution on literature is considered, particularly Darwin's contribution. Prerequisite: one course from BIO level 100; Every Year, Fall

BIO 223 Invertebrate Zoology (4 cr.) This course introduces the basic adaptive features of the major invertebrate groups with emphasis on structure, classification, ecology and evolution, utilizing both lab and field studies. Prerequisites: BIO 101, BIO 102; Every Year, Spring

BIO 223L Invertebrate Zoology Lab (0 cr.) Lab to accompany BIO 223. (3 lab hrs.) Every Year, Spring

BIO 227 Comparative Anatomy and Physiology (4 cr.) A systemic approach to vertebrate anatomy and physiology examining how structures and organ systems have evolved through the different vertebrate groups from fish to mammals. Skeletal, muscular, nervous, and endocrine systems are covered in this first semester of the full-year course. The laboratory involves the application of material from the accompanying lecture. This highly integrated approach reviews anatomy using two representative vertebrates, the shark and cat, to compare structures and organ systems. Physiological principles are applied through inquiry-based activities and experimental design. Must be taken in sequence with BIO 228. (3 lecture hrs.; 3 lab hrs.) Prerequisites: BIO 101, BIO 102; Every Year, Fall

BIO 227L Comparative Anatomy and Physiology Lab (0 cr.) Lab to accompany BIO 227. (3 lab hrs.) Every Year, Fall

BIO 228 Comparative Anatomy and Physiology (4 cr.) A systemic approach to vertebrate anatomy and physiology examining how structures and organ systems have evolved through the different vertebrate groups from fish to mammals. Circulatory, respiratory, digestive and urogenital systems are covered in this second semester of the full-year course. The laboratory involves the application of material from the accompanying lecture. This highly integrated approach reviews anatomy using two representative vertebrates, the shark and cat, to compare structures and organ systems. Physiological principles are applied through inquiry-based activities and experimental design. ( 3 lecture hrs.; 3 lab hrs.) Prerequisites: BIO 101, BIO 102, BIO 227; Every Year, Fall

BIO 228L Comparative Anatomy and Physiology Lab (0 cr.) Lab to accompany BIO 228. (3 lab hrs.) Every Year, Spring

BIO 240 Cellular Communication (3 cr.) This class focuses on the molecular mechanisms by which cells communicate with each other. Using examples from both prokaryotes and eukaryotes, students examine how cells release signaling molecules, and then consider how target cells recognize and respond to the signals. Participants discuss how the basic processes are altered in diseases of signal processing such as cancer, diabetes and depression. Prerequisites: BIO 101, BIO 102, CHE 110, CHE 111; Every Year, Fall

BIO 282 (UC) Genetics ( 4 cr .) This course considers the basic principles of inheritance, including data analysis and problem-solving skills. Students gain laboratory experience with a variety of techniques and organisms of current research importance, as well as with solving problems and analyzing data. Emphasis is on sound logic, creative thought and experimental design. (3 lecture hrs.; 3 lab hrs.) Prerequisites: BIO 101, BIO 102; Every Year, Fall and Spring

BIO 282L (UC) Genetics Lab (0 cr.) Lab to accompany BIO 282. (3 lab hrs.) Every Year, Fall and Spring

BIO 298 Research Methods in Biology (2 cr.) This introduction to biological research includes discussion and demonstrated skills in library use, literature citation, academic integrity, experimental design, statistical and graphical treatment of data, and professional design and presentation of research as well as career development. The course culminates with a final research project. Prerequisites: BIO 101, BIO 102; Every Year, Fall

BIO 317 Developmental Biology ( 2 cr .) This course is an introduction to the basic developmental processes that enable a single cell to differentiate and create entire organ systems. Various animal models are explored, compared and integrated to illustrate key molecular and cellular events that lead to the formation of an entire organism. Prerequisites: BIO 101, BIO 102; Every Year, Spring

BIO 317L Developmental Biology Lab (2 cr.) Lab to accompany BIO 317. This project-based laboratory uses a variety of different model systems to examine development. Students complete small projects that lead to the development of a major research project at the end of the course. Every Year, Spring

BIO 328 Human Clinical Parasitology ( 3 cr.) This course considers the biology of protozoan and helminth parasites of humans and includes an introduction to tropical medicine. Lectures focus on the life cycles of selected parasites and epidemiology and pathology of selected parasitic diseases. Laboratory work focuses on clinical diagnosis, diagnostic techniques (including immunodiagnostic techniques), recognition of vectors, and experimental life cycle studies using both living and preserved materials. Prerequisites: BIO 101, BIO 102; Every Other Year, Spring

BIO 328L Human Clinical Parasitology Lab (1 cr.) Lab to accompany BIO 328. (3 lab hrs.) Every Other Year, Spring

BIO 329 Neurobiology ( $\mathbf{3}$ cr.) This course is an introduction to molecular, cellular and organismal neuroscience. After exploring basic topics including electrical excitability, neurotransmitters and receptors, the course considers higher-level integrated systems such as the sensory systems. Human disorders, including Parkinson's disease, multiple sclerosis and color-blindness are discussed to highlight the importance of proper functioning of the various components of the nervous system. Prerequisites: BIO 101, BIO 102; Every Year, Spring

BIO 329H Honors Neurobiology ( $\mathbf{3} \mathbf{~ c r}$.) This course is an introduction to molecular, cellular and organismal neuroscience. After exploring basic topics including electrical excitability, neurotransmitters and receptors, the course considers higher-level integrated systems such as the sensory systems. Human disorders, including Parkinson's disease, multiple sclerosis and color-blindness are discussed to highlight the importance of proper functioning of the various components of the nervous system. Prerequisites: BIO 101, BIO 102; Every Year, Spring

BIO 346 Cell Physiology ( $\mathbf{3}$ cr.) This course examines the physiology of the cell with emphasis on the structure and function of the eukaryotic cell. Topics include
metabolism, protein synthesis, cytoskeleton, movement, communication and control of cellular reproduction. The lab involves current techniques for separating and identifying cell components and enzyme systems, and microscopic and physiological identification of a eukaryotic motility mutant. (3 lab hrs.) Prerequisites: BIO 101, BIO 102, CHE 210, CHE 211; Every Year, Spring

BIO 346L Cell Physiology Lab (1 cr.) Lab to accompany BIO 346. (3 lab hrs.) Every Year, Spring

BIO 350 Cardiovascular Physiology ( 3 cr.) The physiology of the mammalian heart is studied in detail. The course examines electrophysiology of the heart, structure and function, cardiac cycle, hemodynamics, capillary dynamics, cardiovascular reflexes, cardiac output and venous return. Atherosclerosis, hypertension and circulatory shock also are discussed. Prerequisite: one group: BIO 211-212; BIO 227-228; Every Year, Fall

BIO 382 Human Genetics (4 cr.) (3 hours lecture, 3 hours laboratory) This course examines the genetic mechanism in humans, including data analysis and problem solving skills. The course includes an exposure to techniques for analysis of genetic variation in humans, the structure of the human genome, the implication of human genetic variation, somatic cell genetics, an introduction to medical genetics, DNA analysis, and the implications of genetic knowledge in the context of modern society and culture. Prerequisites: BIO 101, BIO 102; Every Other Year, Fall

BIO 383 Evolution (4 cr.) (3 hours lecture, 3 hours laboratory) This course examines the mechanisms of evolutionary change and surveys the evolutionary and phylogenetic history of life on earth. Because evolution is often a focus of social debate about ways of knowing and about the nature of humanity, students also explore the history of this debate and its influence on society. Students enrolling in the graduate level of this course are expected to complete course goals beyond those students enrolled in BI 383. Prerequisites: BIO 101, BIO 102, BIO 282; Every Year, Spring

BIO 397 Prehealth Professions Clinical Affiliation ( 3 cr ) This apprenticeship program pairs an undergraduate student who displays maturity, dedication and sensitivity with a health professional in his or her field of interest for a 12 -week period. The affiliation is designed to provide the student with the opportunity to observe social, ethical and medical issues in a clinical setting. Professional dress is required. Students may register for the course according to the following criteria: permission of faculty; completion of a minimum of three semesters at Quinnipiac; satisfactory GPA. Prerequisites: BIO 211, BIO 212; Every Year, Spring

BIO 399H Honors Research in Biological Sciences
( 3 cr .) This course targets students who are majoring in the biological sciences and are seeking University honors and/or departmental honors. In this capstone seminar, students participate in in-depth examination of primary research papers. The material relates to a central theme chosen by the professor. Prerequisites: BIO 101, BIO 102, BIO 298; Every Year, Fall

BIO 471 Molecular Genetics ( $\mathbf{3} \mathrm{cr}$.) This course introduces students to the theory and practice of DNA manipulation that is involved in modern molecular biology, including cancer research, cellular development, regulation of differentiation and construction of designer genes in plants, animals, humans, microorganisms and virus. These methods are common in health research, industrial discovery and environmental remediation. The lecture and the laboratory, which involves DNA manipulation and gene cloning, are designed for students interested in careers in medicine, biotechnology, microbiology and graduate programs. Prerequisites: BIO 101, BIO 102, CHE 110, CHE 111; Every Year, Spring

BIO 471L Molecular Genetics Lab (1 cr.) Lab to accompany BIO 471. (4 lab hrs.) Every Year, Spring

Courses offered as needed
BIO 205 Bioethics (3 cr.) Prerequisite: BIO 101, BIO 102, PL 101 or PS 101
BIO 218 Vertebrate Natural History (4 cr.) Prerequisites: BIO 101, BIO 102
BIO 219 Ornithology (4 cr.) Prerequisites: BIO 101, BIO 102
BIO 219L Ornithology Lab (0 cr.)
BIO 331 Earth Science ( 2 cr.)
BIO 331L Earth Science Lab (2 cr.)
BIO 351 Natural History of New England (3 cr.) Prerequisites: BIO 101, BIO 102
BIO 351L Natural History of N.E. Lab (1 cr.)
BIO 352 Botany ( 2 cr.) Prerequisites: BIO 101, BIO 102
BIO 352L Botany Lab (2 cr.)
BIO 353 General Ecology (2 cr.) Prerequisites: BIO 101, BIO 102
BIO 353L General Ecology Lab (2 cr.)
BIO 354 Marine Ecology (4 cr.) Prerequisites: BIO 101, BIO 102
BIO 356 Freshwater Ecology ( 2 cr.) Prerequisites: BIO 101, BIO 102
BIO 356L Freshwater Ecology Lab (2 cr.)
BIO 358 Human Ecology (2 cr.)
BIO 358L Human Ecology Lab (2 cr.)

## Biomedical Sciences (BMS)

BMS 110 (UC) The World of Microbes (4 cr.) In this course, which is designed for nonscience majors, students are introduced to the relevance of microorganisms in everyday life. Topics include: microorganisms in the environment, infectious diseases, biotechnology, foods and beverages, antibiotics and host defense mechanisms. Laboratory work stresses standard procedures used in microbiology. Every Year, Fall and Spring

BMS 110L (UC) World of Microbes Lab (0 cr.) Lab to accompany BMS 110. (2 lab hrs.) Every Year, Fall and Spring

BMS 114L (UC) Microbes in Action Lab (0 cr.) Lab to accompany BMS 114. (2 lab hrs.) Every Year, Spring

BMS 117 (UC) Human Organism (4 cr.) Concepts in human biology designed primarily (although not exclusively) for students in nonscience programs are covered in this course. Emphasis is on the human organism from a developmental and a biological perspective. Consideration and discussion of societal issues relative to human biology is an integral aspect of this course. Laboratory applications include exercises in the study of basic
human biology. Every Year, Fall and Spring
BMS 117L (UC) Human Biology Lab (0 cr.) Lab to accompany BMS 117. (2 lab hrs.) Every Year, Fall and Spring

BMS 162 (UC) Human Health (3 cr.) This course, which is designed for nonscience majors, describes human disease from a biological viewpoint, and presents human health concerns and issues for discussion. Historical and sociological perspectives on human disease as well as the scientific investigation of disease processes are included. The role of molecular biology and biotechnology in approaching human disease also is discussed. Students may not earn UC credit for both BMS 118 and BMS 162. Every Year, Fall and Spring

BMS 200 (UC) Biology of Aging (3 cr.) Current advances in the understanding of the neural, endocrine and other body systems suggest that the process of aging may be triggered by signals originating in these systems. This hypothesis provides a framework upon which to study the effects of neuroendocrine changes upon the maturing body. Age related changes in nervous and hormonal activity regulate the timetable of important physiological events such as birth, adolescence, menopause and old age. The aim of the course is to study the specific and primary changes in physiological mechanisms that result in the process of aging. The profound physiological changes and restrictions that result make the study of the relevant biological processes fundamental to gerontology.

Prerequisites: two courses from BIO 101, BIO 102, BMS 117, BMS 162; Every Year, Fall and Spring

BMS 203 Introductory Medical Terminology (2 cr.)
This study of the principles of word analysis, word construction and word meanings as applied to medical and surgical terms includes a review of anatomy to indicate the relevancy of the terms being studied. The course is designed for health science students. Every Year, Spring

BMS 213 Microbiology and Pathology (4 cr.) This introductory overview of microorganisms presents a detailed study of the interactions of pathogenic microbes and humans particularly as they apply to the hospital environment. This course is designed primarily for the health practitioner. Students may receive credit for BMS 213 or BMS 370, but not both. Prerequisites: BIO 101, BIO 102; Every Year, Fall and Spring

BMS 213L Microbiology and Pathology Lab (0 cr.) Lab to accompany BMS 213. (3 lab hrs.) Every Year, Fall and Spring

BMS 276 Drug Development ( $\mathbf{3}$ cr.) Students study the processes required to develop new drugs and the regulations associated with drug development. Topics include drug discovery, preclinical and clinical testing of drugs, pharmacoeconomics and legislation associated with drug regulation. Specific drug examples are discussed throughout the course. Prerequisite: one group: BIO 101-102; BMS 117-BMS 162; BIO 105-106; Every Year, Spring

BMS 278 Research and Technology ( $\mathbf{3}$ cr.) This course involves topics related to developing scientific and analytical skills, including written and oral communication, critical thinking and reasoning, scientific inference, information literacy, responsible citizenship and quantitative reasoning. The purpose of the course is to examine and discuss the current methods used by scientists and health care workers regarding computers and technology, hardware and software, oral and written communication, research methods, etc. Prerequisites: One year of general biology and one year of general chemistry. BMS and H\&SS students may take BIO 298 and/or BMS 278.

## BMS 300 The Physiology of Human Performance

( 4 cr .) This course presents a detailed examination of muscle and nerve physiology, and central nervous system control of posture and locomotion. Cardiorespiratory and thermoregulatory responses to exercise are considered. Anatomical and physiological factors limiting various types of physical performance are discussed. Fullyear course; must be taken in sequence. Prerequisites: BIO 211, BIO 212; CHE 102 or CHE 111; PHY 101 or PHY 110; Every Year, Fall

BMS 300L Physiology of Human Performance Lab (0 cr.) Lab to accompany BMS 300 (3 lab hrs.) Every Year, Fall

## BMS 301 The Physiology of Human Performance

( 4 cr .) This course presents a detailed examination of muscle and nerve physiology, and central nervous system control of posture and locomotion. Cardiorespiratory and thermoregulatory responses to exercise are considered. Anatomical and physiological factors limiting various types of physical performance are discussed. Fullyear course; must be taken in sequence. Prerequisite: BMS 300; Every Year, Spring

## BMS 301L Physiology of Human Performance Lab

 (0 cr.) Lab to accompany BMS 301. (3 lab hrs.) Every Year, SpringBMS 304 Biological Chemistry ( $\mathbf{3}$ cr.) This course, which is for ELMPA majors only, is a comprehensive study of contemporary biochemistry for pre-physician assistant students. The fundamental chemical and physical principles that underlie living processes are examined with an emphasis on the chemical structure and biological function. Medical and clinical perspectives relate the chemistry to health concerns and/or diagnostic applications. Students who have completed CHE 315 are not eligible to take this course. Prerequisites: BIO 101, BIO 102, BIO 211, BIO 212, CHE 110, CHE 111, CHE 210, CHE 211; Every Year, Spring

BMS 310 Neuroanatomy I ( $\mathbf{3} \mathbf{c r}$.) This course offers the pre-physician assistant student a detailed study of the gross anatomy and development of the central nervous system. Major structures and landmarks within each major brain vesicle and spinal cord are covered. Every Year, Fall

BMS 318 Pathophysiology (3 cr.) This course takes a mechanistic approach to the regulation of function of organ systems to provide students with the underlying physiological concepts in the homeostasis of each system and its interrelationship to other systems, the pertinent diseases that best exemplify the disarray of the controlling mechanism. Students learn a way of thinking that enables them to conceptualize clinical problems in relation to system functions. Prerequisite: one group: BIO 211-212; BIO 227-228; Every Year, Fall and Spring

BMS 320 Pharmacology ( $\mathbf{3}$ cr.) This course takes a physiological systems approach to the study of the major classes of drugs used in therapeutics. Each class of drugs is studied according to dose-response characteristics, mechanism of action, major physiological effects, toxicity and possible drug interaction. Prerequisite: one group: BIO 211-212; BIO 227-228; Every Year, Fall and Spring

BMS 325 Toxicology (3 cr.) Toxicology is the branch of science that investigates the complex interactions between exogenous chemicals and physical processes (e.g. radiation) with living organisms. This course entails an examination of the absorption, distribution, toxicokinetics, metabolism and elimination of exogenous substances from the body. Particular emphasis is placed on the effects of toxic agents on the following systems in humans: hepatobiliary, pulmonary, renal, nervous and reproductive. The role of toxic chemicals/physical agents in teratogenesis, mutagenesis and carcinogenesis also is studied. Prerequisite: BIO 101, BIO 102, CHE 201 or CHE 210; Every Year, Spring

BMS 330 Endocrinology ( $\mathbf{3}$ cr.) This course introduces students to 1 ) an intensive understanding of the mechanism of hormone action; 2) the importance of the interrelationship among all hormones; 3) a detailed clinical situation dealing with hormonal aberrations; and 4) a theoretical and practical method for hormone assays. Prerequisites: BIO 101, BIO 102; Every Year, Fall

BMS 332 Histology ( $\mathbf{4} \mathbf{~ c r . ) ~ T h i s ~ s t u d y ~ o f ~ t h e ~ m i c r o s c o p i c ~}$ and ultramicroscopic structure of cells, tissues and organs emphasizes their functional mechanisms. Students learn how to prepare normal tissues and organs for histological and histochemical study and how to examine prepared slides. Prerequisites: three courses from BIO 211, BIO 212, CHE 201, CHE 205, CHE 210, CHE 211; Every Year, Spring

BMS 332L Histology Lab (0 cr.) Lab to accompany BMS 332. (3 lab hrs.) Every Year, Spring

BMS 370 General Microbiology ( $\mathbf{4} \mathbf{~ c r}$.) This study of the biology of bacteria and other microorganisms emphasizes techniques of isolation, observation, cultivation and identification. The role played by microorganisms in nature and in industry also is considered. Students may receive credit for BMS 213 or BMS 370, but not both. Prerequisites: BIO 101, BIO 102, CHE 110, CHE 111; Every Year, Fall and Spring

BMS 370L General Microbiology Lab (0 cr.) Lab to accompany BMS 370. (4 lab hrs.) Every Year, Fall and Spring

BMS 372 Pathogenic Microbiology ( 4 cr ) This study of the cultural, biochemical, serological and pathogenic characteristics of disease-producing microorganisms emphasizes identifying disease microorganisms and differentiating them from closely related species that represent human's indigenous flora. Prerequisite: BMS 370; Every Year, Spring

BMS 372L Pathogenic Micro Lab (0 cr.) Lab to accompany BMS 372. (4 lab hrs.) Every Year, Spring

BMS 373 Mycology (4 cr.) The morphology, taxonomy and phylogeny of fungi are studied in this course. Laboratory exercises include the cultural and biochemical reaction of selected human pathogens. Prerequisite: BMS 370; Every Other Year, Fall

BMS 373L Mycology Lab (0 cr.) Lab to accompany BMS 373. (4 lab hrs.) Every Other Year, Fall

BMS 375 Immunology ( $\mathbf{4}$ cr.) This course entails a study of the basic principles and regulatory mechanisms of the immune response in mammals, in particular, the human immune response. Innate defenses along with cellular and humoral immune defense mechanisms are studied in detail. Abnormal immune system function is explored via study of: immune deficiency states, hypersensitivity and autoimmune disease. Vaccines, tissue transplantation and the immunology of cancer also are discussed. Students may receive credit for BMS 375 or HSC 375, but not both. Prerequisite: BMS 370; Every Year, Spring

BMS 375L Immunology Lab ( $\mathbf{0}$ cr.) Lab to accompany BMS 375. (2 lab hrs.) Every Year, Spring

BMS 388 Clinical Training I ( 3 cr ) This course is for non-ELMPA majors. It provides classroom and clinical experience for students interested in obtaining emergency medical technician basic training. Emphasis in study is placed on patient assessment, clinical signs and symptoms, pathophysiology and the pre-hospital care of patients. Clinical rotations on an ambulance service are required. Successful completion of the BMS 388-BMS 389 sequence and the fulfillment of state-mandated hours of instruction are required to be eligible for certification. Every Year, Fall

BMS 388L Clinical Training I Lab (0 cr.) Lab to accompany BMS 388. (3 lab hrs.) Every Year, Fall

BMS 389 Clinical Training II ( 3 cr .) This course is a continuation of BMS 388. Every Year, Spring

BMS 389L Clinical Training II Lab (0 cr.) Lab to accompany BMS 389. (3 lab hrs.) Every Year, Spring

BMS 470 Virology ( $\mathbf{4}$ cr.) This course covers the strategies employed by different virus families to infect host cells and replicate within them. This includes animal viruses as well as bacterial viruses. Topics include viral structure, genetics, molecular mechanisms of replication and the host response to infection. Students also are exposed to standard research methodologies as well as cutting-edge research used in the virology field through reviews of current research articles. Prerequisite: BMS 370; Every Year, Fall

BMS 470L Virology Lab (0 cr.) Lab to accompany BMS 470. (4 lab hrs.) Every Other Year, Spring

BMS 472 Biotechnology ( 4 cr.) This course addresses the isolation, growth, genetic manipulation and use of organisms (commonly genetically modified) or their products in fermented food production, agriculture, pharmaceutical discovery and production, molecular diagnostics, vaccine production, transgenic animal formation and human gene therapy. Purification, identification, optimization, testing, government regulations and patents are addressed. This hands-on course is designed for students interested in careers in the expanding modern world of applied biology and microbiology in research and industry. (4 lab hrs.) Prerequisite: BMS 370; Every Year, Fall

BMS 473 Infections of Leisure ( $\mathbf{3}$ cr.) This course looks at infectious hazards associated with a wide range of human leisure activities, from lazing on a beach to relaxing in a spa, dining out, or simply staying home and gardening. Participants discuss infections linked to salt and freshwater activities, camping and the outdoors, gardening, contact with animals, eating, foreign travel, sports, sexually transmitted diseases, body piercing, tattooing, and trekking to high altitudes. Topics such as epidemiology, antibiotic resistance, pathogenicity, plagues and vaccines also are addressed. This course has social organization of the science of infectious diseases. Prerequisite: BMS 370 or BMS 213; Every Year, Fall

BMS 474 Power of Plagues ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ e x a m i n e s ~}$ the impact of infectious diseases on humans-in the past, in the present and in the future. From the 14thcentury plague to the current HIV/AIDS, diseases have fundamentally altered the shape of society, politics and culture. This class examines some important diseases, including their impact, pathogenicity, infectivity, epidemiology, consequences, costs and lessons learned. Diseases such as smallpox, polio, rabies, tuberculosis, cholera, bubonic plague, influenza, malaria, yellow fever, syphilis and AIDS are investigated. The impact of antibiotics, antibiotic resistance and nosocomial infections also is discussed. Prerequisite: BMS 213 or BMS 370; Every Other Year, Fall

BMS 475 Special Topics in Microbiology (4 cr.) The latest developments and concepts in the field of clinical and public health microbiology are introduced. Topics may include the oral microbiology, epidemiology of Streptococcal and Staphylococcal infections, antibiotic resistance, drug susceptibility testing, the bacteriology of the hospital environment, vaccine preventable diseases or quality control in the clinical microbiology laboratory. Recommendation of lab instructor and permission of instructor needed. (One lecture hr., one discussion hr., and 4-10 lab hrs.) Prerequisite: BMS 370; Every Year, Fall and Spring

BMS 476 Environmental Microbiology (4 cr.) Students examine the role of unique and exciting microorganisms found in the natural environment, especially those from extreme environments such as deep sea vents, hot springs, high salt or acidophilic environments, which are also of considerable industrial interest. This hands-on course examines air, soil and water microorganisms with respect to their isolation, unique physiology, ecological relationships, significance, and government/health regulations. The course is designed for biomedical science, biology, health and science studies and microbiology/ molecular biology majors. Prerequisite: BMS 370; Every Other Year, Spring

BMS 476L Environmental Microbiology Lab (0 cr.) Lab to accompany BMS 476. (4 lab hrs.) Every Other Year, Spring

BMS 478 Microbiology Seminar (1 cr.) For microbiology majors. Every Year, Fall and Spring

BMS 479 Microbiology Research (2 cr.) Independent projects in selected areas of microbiology and biotechnology are completed under the direction of a faculty member. For microbiology majors. Every Year, Fall and Spring

BMS 481 Research Methods in Biomedical Sciences I (1 cr.) Students learn the basic principles of research methodology in biomedical sciences. BMS and H\&SS students may take BMS 481 and BMS 482. Every Year, Fall and Spring

BMS 482 Independent Study (3-4 cr.) Students must register for the course via permission of the SHS dean's office (see mentor for form). BMS and H\&SS students may take BMS 481 and BMS 482. Every Year, Fall and Spring

## Courses offered as needed

BMS 114 (UC) Microbes in Action (4 cr.)

## Business (SB)

SB 101 The Business Environment (3 cr.) The course introduces students to the major fields of business in an integrated framework built around a competitive business simulator. Topics include accounting, marketing, management and finance. Every Year, Fall and Spring

SB 111 Personal Effectiveness (1 cr.) In this course, students begin the process of developing the personal and professional skills required to succeed in college and in business. Topics covered include self motivation, goal setting, managing time and priorities, interpersonal leadership and study skills. Every Year, Fall and Spring

SB 112 Career Planning and Development (1 cr.) Students develop the skills required to design and execute an individual career plan. The course includes self-assessment as well as the exploration of resources related to academic majors and careers. Skills are developed in networking, resume writing, interviewing and job/internship search strategies. Career life cycle and career transition issues also are discussed. Every Year, Spring

SB 211 Business Communications (1 cr.) In this course, students develop business writing and presentation skills. Emphasis is placed on writing business documents such as reports, letters, memos and email. The development and delivery of effective business presentations also are covered. Every Year, Fall and Spring

SB 212 Ethics and Diversity ( $\mathbf{1}$ cr.) This course provides students with a foundation for effectively dealing with issues of ethics and diversity that arise in the workplace. Students are introduced to ethical issues that arise in the functional areas of business and develop the ethical reasoning skills necessary to address such issues. Students also develop an awareness and appreciation of diversity in the workplace as well as the ability to develop strategies to address those issues. Every Year, Fall and Spring

SB 425 CEO Lessons in Leadership (3 cr.) This seminar enables students to work directly with chief executive officers and senior executives from major multinational corporations to research and present solutions to address strategic issues faced by companies operating in a global environment. Students have the opportunity to present their results with an analysis of their analytical techniques and proposed courses of action and presentation of results. Prerequisite: MK 201, FIN 201, IB 201, MG 210, CIS 101, AC 102 or AC 212; Every Year, Spring

## SB 450 Strategic Integrated Management Seminar

 ( $\mathbf{3} \mathbf{~ c r}$.) This capstone course focuses on the job of top management in formulating and implementing shortand long-term corporate strategy. The course integrates critical concepts from core business subjects including accounting, finance, management, marketing, operations management, international business and economics. Course activities include case studies, individual and/or group projects and computerized business simulations. For seniors only. Prerequisites: AC 102, FIN 201, IB 201, MK 201, MG 210, MG 211; Every Year, Fall and Spring
## SB $\mathbf{4 5 0 H}$ Honors Strategic Integrated Management

 Seminar ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c a p s t o n e ~ c o u r s e ~ f o c u s e s ~ o n ~ t h e ~ j o b ~}$ of top management in formulating and implementing short- and long-term corporate strategy. The course integrates critical concepts from core business subjects including accounting, finance, management, marketing, operations management, international business and eco-nomics. Course activities include case studies, individual and/or group projects and computerized business simulations. For seniors only. Prerequisites: AC 102, FIN 201, IB 201, MK 201, MG 210, MG 211; Every Year, Spring

Courses offered as needed
SB 185 Personal Finance ( 3 cr .)
SB 360 International Microloan Funding (3 cr.)

## Career Practicum (CAR)

CAR 295 Career Practicum (1 cr.) This course offers practical training for an occupation requiring a bachelor's degree. It involves supervised work (paid or unpaid) in an employment setting and career development research and reflection. This course may be taken once and the final grade is Pass/Fail.

## Chemistry (CHE)

CHE 101 (UC) Fundamentals of General, Organic and Biological Chemistry I ( $\mathbf{3} \mathbf{~ c r}$.) This course presents the general fundamentals of chemistry: atomic theory (including radioactivity), bonding (including ions and molecules), stoichiometry, states of matter, and solutions (including solubility, acids, bases, buffers). A math placement score of 3 or higher is required to enroll in CHE 101. (Students with scores below a 3 must complete recommended math courses to improve proficiency in algebraic skills before enrolling in CHE 101.) Must be taken in conjunction with CHE 101L. (Note: This course is designed for health science majors.) Every Year, Fall and Spring

CHE 101L (UC) Fundamentals of General, Organic and Biological Chemistry I Lab (1 cr.) Lab must be taken with CHE 101. (2.5 lab hrs.) Every Year, Fall and Spring

CHE 102 (UC) Fundamentals of General, Organic and Biological Chemistry II (3 cr.) This course is an introduction to selected functional groups of organic chemistry and their application to biochemistry. Must be taken in conjunction with CHE 102L. Prerequisites: CHE 101, CHE 101L; Every Year, Spring

CHE 102L (UC) Fundamentals of General, Organic and Biological Chemistry II Lab (1 cr.) Lab must be taken with CHE 102. (2.5 lab hrs.) Prerequisites: CHE 101, CHE 101L; Every Year, Spring

CHE 106 Chemical Principles with Biological Applications (4 cr.) Students engage in active learning
techniques to learn about atomic theory (including radioactivity), bonding (including ions and molecules) and intermolecular forces, states of matter, solutions (including solubility, acids and bases, buffers, electrolytes and nonelectrolytes), carbon compounds and functional groups, biomolecules (such as carbohydrates, fatty acids, and amino acids and proteins), receptors and enzymes, and nucleic acids and DNA. Students apply these fundamental chemical principles to a variety of health related case studies. A math placement score of 3 or higher is required to enroll in CHE 106. (Students with scores below a 3 must complete MA 107 with a grade of C or higher to improve proficiency in algebraic skills before enrolling in CHE 106.) (Enrollment restricted to nursing majors) (3 lecture hrs., 3 lab hrs.) Every Year, Fall and Spring

## CHE 106L Chemical Principles with Biological

 Applications Lab (0 cr.) Lab to accompany CHE 106. (3 lab hrs.) Every Year, Fall and SpringCHE 110 (UC) General Chemistry I (3 cr.) Students are introduced to the atomic theory of matter, nomenclature, chemical formulas and reaction equations, stoichiometry, the gas laws and the kinetic molecular theory, thermochemistry, atomic structure, periodicity of the elements and chemical bonding. A math placement score of 3 or higher is required to enroll in CHE 110. (Students with scores below 3 must complete recommended math courses to improve proficiency in algebraic skills before enrolling in CHE 110.) Must be taken in conjunction with CHE 110L. (Note: This course is designed for science majors.) Every Year, All

CHE 110L (UC) General Chemistry I Lab (1 cr.) Lab must be taken with CHE 110. (3 lab hrs.) Every Year, All

CHE 111 (UC) General Chemistry II (3 cr.) Students are introduced to intermolecular forces, properties of solutions, kinetics, chemical equilibrium, pH and acidbase solution chemistry, thermodynamics, and electrochemistry. Problem-solving is emphasized. Must be taken in conjunction with CHE 111L. Prerequisites: successful completion of CHE 110 and CHE 110L; Every Year, Spring and Summer

CHE 111L (UC) General Chemistry II Lab (1 cr.) Lab must be taken with CHE 111. (3 lab hrs.) Prerequisites: CHE 110, CHE 110L; Every Year, Spring and Summer

CHE 210 Organic Chemistry I ( $\mathbf{3}$ cr.) This course presents a comprehensive study of the principles that govern the properties, reactions and methods of preparation of organic compounds correlated with reaction mechanisms, stereochemistry, conformational analysis, resonance and transition state theory as well as nomenclature of organic compounds. Specific groups covered are alkanes, alkyl halides, alkenes and alkynes. Must be
taken in conjunction with CHE 210L. Prerequisites: CHE 111, CHE 111L; Every Year, Fall and Summer

CHE 210L Organic Chemistry I Lab (1 cr.) Lab must be taken with CHE 210. (3 lab hrs.) Every Year, Fall and Summer

CHE 211 Organic Chemistry II ( $\mathbf{3} \mathbf{~ c r}$.) This continuation of CHE 210 covers specific groups such as aromatic compounds, alcohols and phenols, aldehydes, ketones, carboxylic acids and their derivatives and amines, along with their analysis by infrared and nuclear magnetic resonance spectroscopy. Must be taken in conjunction with CHE 211L. Prerequisites: CHE 210, CHE 210L; Every Year, Spring and Summer

CHE 211L Organic Chemistry II Lab (1 cr.) Lab must be taken with CHE 211. (3 lab hrs.) Every Year, Spring and Summer

CHE 215 Analytical Chemistry (3 cr.) This introduction to the principles and practice of modern chemical analysis includes the following topics: treatment of analytical data, experimental design and sample preparation, simple and complex equilibria, potentiometry, chromatography and spectrophotometry. Must be taken in conjunction with CHE 215L. Intended for chemistry and biochemistry majors and chemistry minors. Prerequisites: CHE 111, CHE 111L; Every Year, Fall

CHE 215L Analytical Chemistry Lab (1 cr.) Lab must be taken with CHE 215. (3 lab hrs.) Every Year, Fall

CHE 301 Physical Chemistry I (3 cr.) Students investigate the underlying theories of chemical phenomena. The laws and fundamental equations of equilibrium thermodynamics are applied to the quantitative treatment of chemical equilibria, phase equilibria, electrochemical equilibria, and ionic equilibria. The principles of chemical kinetics and reaction mechanisms also are investigated. Prerequisites: CHE 111, CHE 111L, MA 141, PHY 111, PHY 111L; Every Other Year, Fall

CHE 301L Physical Chemistry I Lab (1 cr.) Lab must be taken with CHE 301. (3 lab hrs.) Every Other Year, Fall

CHE 302 Physical Chemistry II (3 cr.) This course focuses on the subjects of quantum theory, spectroscopy and statistical thermodynamics. The study of quantum mechanics is used to provide the basis for developing an understanding of atomic and molecular spectroscopy and chemical bonding. Prerequisite: CHE 301; Every Other Year, Spring

CHE 302L Physical Chemistry II Lab (1 cr.) Lab must be taken with CHE 302. (3 lab hrs.) Every Other Year, Spring

CHE 305 Instrumental Analysis (3 cr.) This course covers the following instrumental analysis techniques: FTIR, NMR, UV-VIS, GC-MS, as well as chromatography and electronics. Other current techniques are studied as well. Must be taken in conjunction with CHE 305L. Prerequisites: CHE 211, CHE 211L, CHE 215, CHE 215L; Every Other Year, Spring

CHE 305L Instrumental Analysis Lab (1 cr.) Lab must be taken with CHE 305. (3 lab hrs.) Every Other Year, Spring

CHE 315 General Biochemistry ( $\mathbf{3}$ cr.) This comprehensive study of biologically active compounds and their metabolism, biosynthesis and relationship to biological systems includes a detailed presentation of bioenergetics, enzyme kinetics and buffer systems. Must be taken in conjunction with CHE 315L. Prerequisites: CHE 211, CHE 211L; Every Year, Fall and Spring

CHE 315L General Biochemistry Lab (1 cr.) Lab must be taken with CHE 315. (3 lab hrs.) Every Year, Fall and Spring

CHE 410 Inorganic Chemistry (3 cr.) This general review of the electronic structure of atoms covers ionic and covalent bonding, acid-base chemistry and non-aqueous solvents, coordination chemistry, and periodicity. Symmetry and chemical applications of group theory are introduced. Prerequisite: CHE 111; Every Other Year, Fall

CHE 475 Chemistry Seminar I (1 cr.) Students attend research group meetings and outside seminars, and prepare and present a literature-based seminar on a topic related to their research project. (Enrollment restricted to senior chemistry and biochemistry majors.) Every Year, Fall

CHE 476 Chemistry Seminar II (1 cr.) Students attend research group meetings and outside seminars, and prepare and present a seminar on their research project. (Enrollment restricted to senior chemistry and biochemistry majors.) Prerequisites: CHE 475, CHE 490; Every Year, Spring

CHE 490 Chemistry Research I (3 cr.) Students work closely with a faculty mentor on a chemistry research project. A minimum of 100 lab hours is required.
(Enrollment restricted to senior chemistry and biochemistry majors.) Every Year, Fall

CHE 491 Chemistry Research II (3 cr.) Students continue their work on a chemistry research project begun in CHE 490. A minimum of 100 lab hours is required. (Enrollment restricted to senior chemistry and biochemistry majors.) Prerequisites: CHE 475, CHE 490; Every Year, Spring

## Chinese (CN)

CN 101 Elementary Chinese I ( 3 cr.) This course is an introduction to Mandarin Chinese as a spoken and written language. Students develop reading, writing, oral comprehension and speaking ability in basic Chinese. Chinese culture, customs and business practice are introduced. Every Year, Fall and Spring

CN 102 Elementary Chinese II ( 3 cr .) This course is a continuation of Chinese 101. Prerequisite: CN 101; Every Year, Fall and Spring

## Communications (COM)

COM 201 (formerly MSS 190) Media Career Development ( $1 \mathbf{c r}$.) This course introduces students to the career development process and covers the skills needed to create a personal career plan. It includes topics such as selfassessment, career research, resume and cover letter preparation, networking and interviewing practice, as well as strategies for internship/job searches. Course material is geared specifically toward media/communication careers. The course is graded on a pass/fail basis. Students majoring in communications cannot count COM 201/MSS 190 toward their major electives. Every Year, Fall and Spring

COM 301 Communications Career Practicum (1 cr.) This course offers practical training in a communica-tions-related occupation. Students complete a minimum of 40 hours of supervised field work (paid or unpaid) in an employment setting. The 1 -credit course also involves career development research and reflection. This course may be taken up to three times as designated by the subsequent COM 302 and COM 303. Career Practicum must be approved by the assistant dean of career services in accordance with school policies. Sophomore status required. This course is graded on a pass/fail basis. Every Year, All

## COM 302 Communications Career Practicum II (1 cr.)

Refer to COM 301. Every Year, All
COM 303 Communications Career Practicum III (1 cr.) Refer to COM 301. Every Year, All

COM 490 (formerly MSS 490) Internship (3 cr.) The goal of the course is to promote professional growth through observation and participation in jointly supervised fieldwork with a cooperating organization. The course also provides the opportunity for students to meet and work with active professionals while defining their own career goals. Students complete a minimum of 120 hours of fieldwork supervised by the program director and a qualified field supervisor. Internship placements must be
approved by the internship program director in accordance with school policies. Junior/Senior status is required. This course is graded on a pass/fail basis. Every Year, All

COM 491 Advanced Internship ( 3 cr ) This course is a continuation of COM 490 with an emphasis on building and expanding on previous fieldwork experience. Junior/Senior status is required. This class is graded on a pass/fail basis. Prerequisite: COM 490; Every Year, All

## Computer Information Systems (CIS)

## CIS 101 Introduction to Information Systems (3 cr.)

 This course introduces students to contemporary information systems and demonstrates how these systems are used throughout global organizations. The focus is on the key components of information systems-people, software, hardware, data and communication technolo-gies-and how these components can be integrated and managed to create competitive advantage. Students gain an understanding of how information is used in organizations and how IT enables improvement in quality, speed and agility. This course also provides an introduction to systems and development concepts, technology acquisition and various types of application software that have become prevalent or are emerging in modern organizations and society. Every Year, All
## CIS 107 Information Systems for Communications

( $\mathbf{3} \mathbf{c r}$ ) This course introduces communications students to contemporary information systems and demonstrates how these systems are used throughout global organizations. The focus is on the key components of information sys-tems-people, software, hardware, data and communication technologies-and how these components can be integrated and managed to create competitive advantage. Students gain an understanding of how information is used in organizations and how IT enables improvement in quality, speed and agility. This course also provides an introduction to systems and development concepts, technology acquisition and various types of application software that have become prevalent or are emerging in modern organizations and society. Every Year, Spring

CIS 125 Systems Analysis and Design (3 cr.) This course discusses the processes, methods, techniques and tools that organizations use to determine how they should conduct their business, with a particular focus on how computer-based technologies can most effectively contribute to the way business is organized. Topics include a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to
address the business requirements, and specifying the requirements for the information systems solution. The course specifically acknowledges the fact that in many cases technology capabilities are purchased from outside the organization either through the use of packaged systems or consulting resources. Prerequisite: CIS 101 or CIS 107; Every Year, Fall

CIS 225 Object-Oriented Analysis and Design (3 cr.) Object modeling is useful for designing computer-based information systems, whether those systems are to be implemented in object-oriented languages or not. Most designs are likely to need more than an object-oriented language, such as a database. Object modeling also has a use outside of the design of computer systems. It is an excellent analysis method, and it can be used in business process reengineering, in social science research, or any complex environment where it is important to capture the structure and functionality of some real-world system. Prerequisite: CIS 125; Every Year, Spring

CIS 245 Object-Oriented Programming (3 cr.) This course provides an introduction to object-oriented programming using relational databases in a client-server environment. Emphasis is on the product operation skills necessary to function in an object-oriented environment and the graphical application development process. Common programming techniques necessary to create simple but useful applications are explained. Prerequisite: CIS 101 or CIS 107; Every Year, Spring

## CIS 246 Advanced Object-Oriented Programming

( 3 cr .) Students develop new custom-designed programs to meet user requirements in a distributed client-server environment utilizing object-oriented tools and techniques. The fundamentals of object-oriented analysis and design are stressed, and the basic tools needed to successfully program in an environment in which the horizontal integration of management data is the norm. Prerequisite: CIS 245; Every Other Year, Fall

CIS 257 Information Mining and Online Communication ( 3 cr.) This course focuses on the application of Internet technologies to communications practice, building on the skills of researching, interviewing and reporting, and applying those tools and techniques in an online environment. In particular, students: 1) develop a critical understanding of the digital work environment for communications professionals; 2) analyze online resources for information gathering and evaluate online media with respect to their credibility, reliability, layout and navigability; 3) develop an understanding of legal and ethical issues for online media; 4) learn the basics of web design and creation/editing; and 5) demonstrate an understanding of the concepts of usability, web design and web writing through hands-on work. Prerequisite: CIS 101 or CIS 107; Every Other Year

CIS 260 Advanced Excel Programming (3 cr.) This course utilizes advanced topics in Excel to solve a range of complex business problems. Topics include: spreadsheet design, the use of complex formulas, functions, list and data management, macros and Visual Basic for Applications. Prerequisite: CIS 101 or CIS 107; Every Other Year

## CIS 267 HTML and Interactive Web Animation and

 Motion Graphics (3 cr.) This course introduces students to web development using HTML and interactive web animation using Adobe Flash. In this project-based course, students explore Flash's drawing, animation and audio capabilities and build interactive graphics and web-based content. Prerequisite: CIS 101 or CIS 107; Every Other YearCIS 270 E-Business Systems ( 3 cr .) This course focuses on the linkage between organizational strategy and networked information technologies to implement a rich variety of business models in the national and global contexts to connect individuals, business, governments and other organizations. Students are introduced to e-business strategy and the development of e-business solutions. Prerequisite: CIS 101 or CIS 107; Every Other Year

CIS 301 Enterprise Systems ( $\mathbf{3}$ cr.) This course explores the design, selection, implementation and management of enterprise IT solutions. The focus is on applications and infrastructure and their fit with the business. Students learn frameworks and strategies for infrastructure management, system administration, content management, distributed computing, middleware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis and emerging technologies. These topics are addressed both within and beyond the organization, with attention paid to managing risk and security within audit and compliance standards. Students also hone their ability to communicate technology architecture strategies concisely to a general business audience. Prerequisite: CIS 101 or CIS 107; Every Year, Fall

CIS 330 Networking and Data Communications (3 cr.) This course examines IT infrastructure issues for students majoring in information systems. It covers topics related to both computer and systems architecture and communication networks, focusing on Internet-based solutions, computer and network security, business continuity and the role of infrastructure in regulatory compliance. Students gain the knowledge and skills needed for communicating effectively with professionals whose special focus is on hardware and systems software technology and for designing organizational processes and software solutions that require in-depth understanding of the IT infrastructure capabilities and limitations. The
course also prepares students for organizational roles that require interaction with external vendors of IT infrastructure components and solutions. Prerequisite: CIS 101 or CIS 107; Every Year, Fall

CIS 351 Database Programming and Design (3 cr.) This course provides an introduction to the core concepts and skills in data and information management, such as identifying organizational information requirements, modeling them using conceptual data modeling techniques, converting the conceptual data models into relational data models and verifying its structural characteristics with normalization techniques, and implementing and utilizing a relational database using an industrialstrength database management system. The course also covers basic database administration tasks. Students develop database applications, and learn how large-scale packaged systems are highly dependent on the use of DBMSs. The course also introduces students to data and information management technologies that provide decision support capabilities under the broad business intelligence umbrella. Prerequisite: CIS 125; Every Year, Fall

CIS 355 Business Intelligence ( $\mathbf{3}$ cr.) The course provides a comprehensive introduction to the Microsoft Business Intelligence platform using Microsoft SQL Server. It explores advanced database techniques, data visualization, data warehousing, online analytical processing, data mining and other business intelligence topics. Prerequisite: CIS 351; Every Other Year, Spring

CIS 381 Web Development ( 3 cr.) This course focuses on the use of JavaScript to implement client side web developments. Topics include automatically updating pages, rollovers, opening and manipulating windows, frames and image maps, form validation, information access and retrieval, timing events and cookies. Prerequisite: CIS 245; Every Other Year

CIS 411 Information Systems Security (3 cr.) This course introduces students to the fundamental principles and topics of information technology security and risk management at the organizational level. Students learn critical security principles that enable them to plan, develop and perform security tasks. The course addresses hardware, software, processes, communications, applications and policies and procedures with respect to organizational IT security and risk management. Prerequisite: CIS 330; Every Other Year, Fall

CIS 427 Information Systems Strategy (3 cr.) This course addresses the development, delivery, quality assurance, system implementation and post-implementation management of information systems in emerging environments. Topics can include emerging standards for object-oriented application design, software standards
and quality metrics, configuration management, emerging techniques in systems development, and information systems architecture. Prerequisites: CIS 225, CIS 301, CIS 351; Every Year, Fall

CIS 440 IT Project Management ( 3 cr.) Students discuss the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling and closing projects. This course assumes that project management in the modern organization is a complex team-based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisites: CIS 225, CIS 301, CIS 351; Every Year, Spring

## CIS 484 Information Systems Internship (3 cr.)

Students gain experience by employing their skills in a professional setting under practicing professionals. This internship involves in-depth work related to userdefined information needs and is usually completed in the summer between the student's junior and senior years. Students must obtain approval and register prior to starting the work experience. Permission of department chair required. Prerequisites: CIS 225, CIS 301, CIS 351; Every Year, All

Courses offered as needed
CIS 400 Emerging Topics (3 cr.) Prerequisites: CIS 125, CIS 301

## Computer Science (CSC)

CSC 101 Introduction to Internet Studies ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~}$ course covers the history of the Internet, software and hardware connected with the Internet, the Internet and commerce, and education and social issues. The future of the Internet also is explored. Browsers, search engines, and email software packages are examined. The HTML markup language is introduced. Every Year, All

CSC 105 Introduction to Computer Science (3 cr.) This course is an introduction to the field of computer science. Students learn about the history of computers and computing and explore the many disciplines that comprise this dynamic field such as operating systems, graphics and artificial intelligence. The algorithmic thinking necessary in the creation of computer programs is covered as students create 3D movies by providing instructions to characters in an animation. Every Year, All

CSC 110 Programming and Problem Solving (4 cr.) This course serves as an introduction to computer science and computer programming. Topics include fundamental programming constructs; problem-solving techniques; basic data and control structures; testing; debugging; arrays; and an introduction to object-oriented programming. A lab is included. Every Year, All

CSC 111 Data Structures and Abstraction (4 cr.) This course is a continuation of CSC 110. Topics include advanced data structures (linked lists, stacks, queues, trees, hash tables), recursion, abstract data types, introductory algorithms, and intermediate object-oriented programming. A lab is included. Prerequisite: CSC 110; Every Year, Spring

CSC 205 Introduction to Discrete Mathematics (3 cr.) This course introduces students to basic concepts and structures of discrete mathematics. Topics can include propositional and predicate logic, sets and set operations, functions, proof techniques, counting problems, probability and basic number theory. Applications include computer science, biology, social sciences, law and the physical sciences. Prerequisite: CSC 110, MA 110; MA 118, MA 140 or MA 141; Every Year, Spring

## CSC 210 Computer Architecture and Organization

 ( 4 cr.) Students are introduced to the organization and architecture of computers. Topics related to computer organization include digital logic, data representation, computer arithmetic, data path and control unit implementation, memory system organization, and I/O communications. Architecture topics include machine language programming, instruction set design, and factors affecting processor performance. A lab component is included. Prerequisite: CSC 111; Every Year, SpringCSC 215 Algorithm Design and Analysis (3 cr.) This course presents a study of the design and analysis of algorithms. Topics include Asymptotic Analysis, Complexity Theory, Sorting and Searching, Underlying Data Structures, Recursion, Greedy Algorithms, Divide and Conquer, Dynamic Programming, and NP-completeness. Additional topics may include Graph Algorithms, Probabilistic Algorithms, Distributed Computing and Parallel Algorithms. Prerequisites: CSC 111, CSC 205; Every Year, Fall

CSC 225 Introduction to Software Development (3 cr.) This course presents introductory software development concepts including group development, large-scale project work and theoretical aspects of object-oriented programming. The course expands on material from previous courses. Professional behavior and ethics represent an important component of this course. Prerequisite: CSC 111; Every Year, Fall

CSC 310 Operating Systems and Systems Programming ( $\mathbf{3} \mathbf{~ c r}$.) Students are introduced to operating systems and the software to support these systems. Topics include operating system principles, concurrency, scheduling and dispatch, virtual memory, device management, security and protection, file systems and naming, and real-time systems. Prerequisites: CSC 210, CSC 225; Every Year, Fall

CSC 318 Cryptography (MA 318) (3 cr.) Students study methods of transmitting information securely in the face of a malicious adversary deliberately trying to read or alter it. Participants also discuss various possible attacks on these communications. Students learn about classical private-key systems, the Data Encryption Standard (DES), the RSA public-key algorithm, discrete logarithms, hash functions and digital signatures. Additional topics may include the Advanced Encryption Standard (AES), digital cash, games, zero-knowledge techniques and information theory, as well as topics chosen by the students together with the instructor for presentations. Prerequisite: MA 229, CSC 215 or ISM 301; Every Other Year, Spring

CSC 320 Compilers ( 3 cr .) This course presents a study of the design and implementation of compilers. Topics include translators and compilers, lexical analysis, syntax analysis and parsing, runtime environments, and code generation. Prerequisites: CSC 210, CSC 215, CSC 225; Every Other Year, Fall

CSC 345 Computer Graphics ( $\mathbf{3} \mathbf{c r}$.) This course is an introduction to theory and programming in computer graphics. Topics include graphic systems, fundamental techniques in graphics, basic rendering, basic geometric modeling, visualization, virtual reality, computer animation, advanced rendering and advanced geometric modeling. Prerequisites: CSC 215, CSC 225; Every Other Year, Spring

CSC 350 Intelligent Systems (3 cr.) Artificial Intelligence is an umbrella topic covering efforts in a variety of fields all searching for one goal: to get computers to perform well at tasks at which humans excel. Topics include fundamental issues in intelligent systems, search and optimization methods, knowledge representation and reasoning, learning, agents, computer vision, natural language processing, pattern recognition, advanced machine learning, robotics, knowledge-based systems, neural networks and genetic algorithms. Prerequisites: CSC 215, CSC 225; Every Other Year, Spring

CSC 355 Programming Language Concepts (3 cr.) This course represents an introduction to different paradigms of programming languages and their role in the prob-lem-solving process. Topics covered include history and overview of programming languages, introduction to
language translation, language translation systems, models of execution control, declaration, modularity, and storage management, programming language semantics, functional programming paradigms, object-oriented programming paradigms, logic programming paradigms, language-based constructs for parallelism. Prerequisites: CSC 215, CSC 225; Every Other Year, Fall

CSC 361 Numerical Analysis (MA 361) ( 3 cr.) This course covers selected techniques for obtaining numerical values of functions, solving linear and nonlinear equations, interpolation, numerical differentiation and integration, error analysis and numerical stability. Prerequisites: MA 142, MA 229; Every Other Year, Fall

CSC 375 Advanced Topics in Computer Science (3 cr.) This course explores advanced computer science topics not available in other courses, as well as new topics as they emerge in this rapidly evolving discipline. Topics may be interdisciplinary. Prerequisites: CSC 215, CSC 225; Every Year, Spring

CSC 491 Senior Project 1 (1 cr.) This is the first of a two-course sequence required for all computer science majors (beginning with students who entered the program in 2006). Students explore the profession of computing by working independently, under the guidance of a faculty member, on a significant computing project. Participants review professional literature and explore professional ethics, as they work to synthesize their knowledge of computer science. During the first part of the project, students develop a project plan and submit a proposal for approval to their adviser. Students meet regularly to present and discuss progress. Senior status is required. Every Year, Fall

CSC 492 Senior Project 2 ( 1 cr .) This is the second of a two-course sequence required for all computer science majors (beginning with students who entered the program in 2006). Students explore the profession of computing by working independently, under the guidance of a faculty member, on a significant computing project. Participants review professional literature and explore professional ethics, as they work to synthesize their knowledge of computer science. During the second part of the project, students complete work on their project, and create an appropriate formal presentation of their results. Prerequisite: CSC 491; Every Year, Spring

Courses offered as needed
CSC 109 Special Topics (3 cr.)
CSC 200 Special Topics ( 3 cr.)
CSC 220 Introduction to the Dynamic Web (3 cr.) Prerequisite: CSC 101 or IDD 161
CSC 300 Special Topics ( 3 cr.)
CSC 305 Dynamic Web Design ( 3 cr.) Prerequisite: CSC 220

CSC 325 Database Systems ( 3 cr .) Prerequisites:
CSC 215, CSC 225
CSC 340 Networking and Distributed Processing ( 3 cr ) Prerequisites: CSC 210, CSC 215, CSC 225

## Criminal Justice (CJ)

CJ 205 Orientation to Sociology and Criminal Justice and Gerontology (SO/GT 205) (1 cr.) This course introduces sociology, social services, gerontology and criminal justice majors to the disciplines and fields in which they are majoring. Students meet once a week to discuss the origins, breadth and potential careers in their fields. The course orients the student to professions within criminal justice, sociology, social services and gerontology through interaction with departmental faculty, former students and practitioners in the field. For criminal justice majors only. This course is graded on a pass/fail basis. Every Year, Spring

CJ 232 Women in the Criminal Justice System (SO/WS 232) ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ e x a m i n e s ~ t h e ~ c h a n g i n g ~ p a t t e r n s ~}$ of women's criminality, the experiences of women who are processed as crime victims, and the evolution of women's role in law, law enforcement and corrections. Prerequisite: SO 101, CJ 283 or SO 283; Every Year, Fall

CJ 240 Organized Crime ( $\mathbf{3} \mathbf{~ c r}$.) This course considers the history of organized crime, its functions in distributing goods and services, in establishing order and disorder, its role in the integration of marginal ethnic groups, and the response of law enforcement and government agencies. Prerequisite: SO 101, CJ 283 or SO 283; Every Year, Spring

CJ 241 Police and Policing ( $\mathbf{3} \mathbf{~ c r}$ ) This course considers the history and development of functions in policing. Issues and controversies in policing such as: training, police ideology, police management styles, the development of a working police personality, the appropriate use of force, racial profiling, police corruption, patrol, professionalism, due process and vocational considerations are examined. Prerequisites: SO 101 or LE 115; SO 283 or CJ 283; Every Year, All

CJ 242 Race Crime and Justice (SO 242) (3 cr.) In this course, students explore the intersections of race, crime and law in terms of historical context, present-day situations and future directions. Students examine the concepts of race, crime and law from the viewpoints of the offender, the victim and the criminal justice practitioner within the criminal justice process-from law enforcement to courts to corrections. The course also focuses on the interrelationship between theory, policy and practice. Prerequisite: SO 101; Every Year, Spring

CJ 243 Investigative Techniques ( $\mathbf{3} \mathbf{~ c r}$.) This course provides students with knowledge of basic concepts of case and crime scene investigation; scene and investigative personnel management; nature of investigative personnel roles; steps in the processing of scenes and evidence; methods of documentation; general and specialized techniques for the recognition, identification and individualization of evidence; sources of investigative information; interview techniques; reconstruction of events; and legal and ethical considerations during criminal investigations. For majors only. Prerequisite: CJ 283 or SO 283; Every Year, Spring

## CJ 250 Youth Crime and Adolescent Gangs (SO 250)

( 3 cr.) This course deals with youth crime as distinct from adult offending. Students examine development of the juvenile delinquency concept and justification for classifying juvenile offenders as separate from adults. Factors contributing to the onset of juvenile delinquency and relevant research also examined. The course considers the development and current functions of the juvenile justice system, paying particular attention to the challenges justice officials face daily. A range of widely used treatment strategies for dealing with juvenile offenders is examined. Prerequisite: SO 101, CJ 283 or SO 283; Every Year, Fall

## CJ 251 Probation Parole and Community Corrections

 ( 3 cr.) Offenders are sentenced to one of these alternatives to incarceration in order to change or control behavior. Methods of supervision, special goals such as shock probation or parole, electronic and other hightech monitoring, controversies over effectiveness and punitive aspects of these technologies are considered. Prerequisite: SO 283 or CJ 283; Every Year, SpringCJ 260 Politically Motivated Crime ( $\mathbf{3} \mathbf{~ c r}$.) This course deals with domestic terrorism, the militias, hate groups such as the Skinheads, random hate crimes, civil disobedience, treason and the Second Amendment.

CJ 261 Prisons and Jails ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ c o v e r s ~ i n c a r - ~}$ ceration in both prisons and jails. Students examine incarceration as a social phenomenon, exploring its connections to political, economic and cultural forces in society. Participants investigate the history of imprisonment, theories of punishment and the (intended and unintended) societal ramifications of incarceration. Topics include prison architecture, social classifications, prison culture and inmate social structure, violence in prison, Supermax prisons, rehabilitation and prisoner reentry. Prerequisite: SO 283 or CJ 283; Every Other Year

CJ 271 Public Order Crimes (3 cr.) Approximately twothirds of the inmates in U.S. correctional institutions have been found guilty of public order crimes, moral crimes, or crimes not likely to have a self-identified vic-
tim. This course concentrates on crimes associated with such activities as illegitimate gambling, consensual sex, and the criminal use and sale of both legal and illegal substances. Prerequisite: SO 101, CJ 283 or SO 283; Every Year, Fall

CJ 283 Crime and Society (SO 283) ( $\mathbf{3} \mathbf{~ c r}$.) This course examines crime as a cultural phenomenon and as a problem of social control. Topics include the nature of law, characteristics of the criminal justice system, types of crime, as well as the critical evaluation of theories of crime. Prerequisite: SO 101; Every Year, All

CJ 330 Perspectives on Violence (SO 330) (3 cr.) This course explores the many ways that violence is viewed in our society. Topics include types of violence, empirical evidence of incidence, characteristics of violent crimes, offender motivation, victim profiles, and sociological and theoretical explanations. Prerequisites: two courses from SO, CJ; Every Year, Fall

CJ 333 Drugs, Alcohol and Society (SO 333) (3 cr.) This analytical discussion-based course explores the use of drugs and alcohol in U.S. society. The emphasis is on drug and alcohol use and abuse as a social phenomenon. Students explore issues such as the relationship of drug use to particular groups in society (age, sex, race/ethnicity); patterns of drug use and abuse; the promotion of drugs by the media; and drug and alcohol abuse in historical perspective. Students also learn about drug categories, drug education, prevention and treatment and about drug laws. Prerequisites: two courses from SO, CJ; Every Year, Spring

CJ 335 Criminal Justice Systems (SO 335) (3 cr.) This course examines the criminal justice system, including law enforcement, the courts and the correctional system. Each aspect of the system is analyzed in terms of crime statistics, typologies and theoretical application. Prerequisite: SO 283 or CJ 283; Every Year, All

CJ 343 Forensic Issues in Law Enforcement (3 cr.) This course presents an overview of the scientific method and its application to the analysis of physical evidence as it impacts law enforcement investigations. Topics include the study of basic methods of documentation, collection and preservation of physical evidence; general schemes for the analysis of chemical and biological evidence; identification and individualization of firearms, fingerprints, imprints, hairs, fibers, blood and body fluids, paint, drugs and poisons, and other materials associated with crimes. The course material is reinforced through the use of actual case studies, hands-on exercises and class exercises. Every Year, Fall

CJ 353 Sexual Violence ( 3 cr.) This course takes a historical perspective on the societal and psychological aspects of sexual violence as it applies to the criminal justice system. It includes an examination of the etiology of sexual abuse as a law enforcement issue and explores the societal impact of sexual violence upon both those who commit it and those who are the victims of it. The course encourages students to deepen their understanding of the social structural and individual treatment modalities that are employed within the system to decrease sexual violence. Prerequisite: CJ 283; Every Year, Spring

CJ 355 Crime and Media (SO 355) ( $\mathbf{3}$ cr.) Despite little direct contact with offenders or the criminal justice system, people typically hold strong opinions about crimerelated issues. The goal of this course is to understand how media sources shape our attitudes and beliefs about crime and how we should respond to it. To this end, participants examine media involvement in constructing the reality of crime and justice. Prerequisites: two courses from CJ, SO; Every Other Year, Spring

CJ 370 Constitution, Ethics and Policing ( 3 cr.) Students are introduced to the constitutional limitations and ethical considerations that affect police behavior. These include use of force, coercion, entrapment, right to counsel, wiretapping, confessions and exclusionary rule. Prerequisite: SO 283 or CJ 283; Every Year, All

CJ 381 Criminal Justice Methods ( 3 cr.) In this course, students gain an understanding of the theory and methods involved in criminal justice research and how these are implemented in program evaluation. Emphasis is placed on understanding general research principles and methods, and how these apply to program evaluation. For criminal justice majors in their junior or senior year. Every Year, All

CJ 385 Senior Seminar in Criminal Justice Policy ( 3 cr.) This senior-level course examines social policy as applied to a selected aspect of the criminal justice field. Senior status in criminal justice major required. Prerequisite: CJ 381; Every Year, All

CJ 392 Internship ( $\mathbf{3} \mathbf{c r}$.) The major requires one internship in a criminal justice setting such as a local or federal law enforcement agency, an organization providing services to crime victims or offenders, a probation or parole office or a court. During the internship, students participate in a weekly seminar where they examine their internship experiences to maximize personal and professional development. For criminal justice majors in their junior or senior year. Every Year, All

CJ 394 Internship (3 cr.) An optional second internship in a criminal justice setting combined with participation in a weekly seminar allows students opportunity for fur-
ther personal and professional development. For criminal justice majors in their junior or senior year. Prerequisite:
CJ 392; Every Year, All
Courses offered as needed
CJ 200 Special Topics ( 3 cr.)
CJ 300 Special Topics ( 3 cr .) Prerequisite: CJ 283 or SO 283
CJ 368 Violent Offenders: Assessment and Treatment (3 cr.) Prerequisite: SO 283 or CJ 283

## Diagnostic Imaging (RS)

## RS 101 Introduction to Diagnostic Imaging (3 cr.)

Designed to provide an orientation to diagnostic imaging, this course includes history, ethics and basic principles of radiation protection, medical and medicolegal terminology, as well as preclinical observation. Every Year, Spring

RS 210 Radiographic Procedures I (2 cr.) This course introduces the student to the basic concepts, principles and applications of radiographic and radiologic procedures of the chest, abdomen, upper extremities and shoulder girdle. Additional applications related to orthopaedic terminology, pathologies and procedures, trauma and patient-related modifications also are presented. Prerequisites: RS 101, BIO 101, BIO 102, MA 110; Every Year, Fall

RS 211 Laboratory Practicum I (1 cr.) This practicum develops preclinical competency in radiographic procedures studied in RS 210, as well as routine hospital procedures and radiographic tasks, basic radiographic analysis, patient management, communications and manipulation of imaging equipment. Prerequisites: RS 101, BIO 101, BIO 102, MA 110; Every Year, Fall

RS 215 Radiation Safety and Protection (3 cr.) Students are introduced to the effects of ionizing radiation on biological systems at the molecular, cellular, organism, and community levels, with emphasis on medical implications and radiation protection. Prerequisite: RS 260; Every Year, Spring

RS 220 Radiographic Procedures II (2 cr.) This course builds on the previous foundations developed in RS 210. Radiographic, radiologic and orthopaedic procedures related to the lower extremities, pelvic girdle and spine are presented. Trauma, pathologies and patient-related modifications also are included and expanded. Prerequisites: RS 210, RS 211; Every Year, Spring

RS 221 Laboratory Practicum II (1 cr.) Designed to develop preclinical competency in radiographic procedures studied in RS 220, this practicum focuses on radiographic tasks, basic radiographic analysis, patient man-
agement, communications and manipulation of imaging equipment. Prerequisites: RS 210, RS 211; Every Year, Spring

RS 230 Radiographic Procedures III ( 2 cr.) This course provides continued integration and expansion on the concepts, principles and applications developed in RS 210 and RS 220. Radiographic and radiologic procedures related to the spine and contrast media procedures related to the gastrointestinal, urinary and biliary systems are presented, along with common pathological processes. The course also introduces students to basic concepts of computed tomography (CT). Prerequisites: RS 220, RS 221; Every Year, Fall

RS 231 Laboratory Practicum III (1 cr.) This practicum is designed to develop preclinical competency in routine hospital procedures and radiographic tasks, basic radiographic analysis, patient management, communications and manipulation of imaging equipment. Prerequisites: RS 220, RS 221; Every Year, Fall

RS 240 Radiographic Image Production and Evaluation ( 3 cr ) This course presents the basic principles, concepts and practical applications of radiographic image production and diagnostic quality. Topics include radiation production, description and proper selection of exposure factors, radiation protection, imaging media, imaging equipment and basic imaging formulas. Prerequisites: RS 101, BIO 101, BIO 102, MA 110; Every Year, Fall

## RS 240L Radiographic Image Production and

Evaluation Lab I ( $\mathbf{0} \mathbf{~ c r . ) ~ T h e ~ l a b o r a t o r y ~ i s ~ d e s i g n e d ~ t o ~}$ demonstrate and reinforce the concepts and principles presented in RS 240. (2 lab hrs.) Prerequisites: RS 101, BIO 101, BIO 102, MA 110; Every Year, Fall

RS 245 Radiographic Image Production and Evaluation II ( 3 cr .) This course expands on the foundations developed in RS 240. Integration and application of these foundations includes the development of exposure charts, methods of image processing, and the causation and identification of image artifacts. The course also incorporates quality control concepts and testing, and introduces basic terminology and principles of quality control and digital imaging systems. Prerequisite: RS 240; Every Year, Spring

## RS 245L Radiological Processing and Exposure Lab ( 0 cr .) Lab to accompany RS 245. (1 lab hr.)

RS 250 Radiologic Clinical Education I (2 cr.) Students are provided their initial clinical experience under the supervision of certified clinical instructors and clinical staff. Clinical competency and proficiency related to the performance of the radiologic and radiographic procedures of RS 210 and RS 211 are developed and assessed. Prerequisites: RS 101, BIO 101, BIO 102; Every Year, Fall

RS 251 Radiologic Clinical Education II (2 cr.) This course is a continuation of RS 250. Prerequisite: RS 250; Every Year, Spring

RS 252 Radiologic Clinical Education III (2 cr.) This course is a continuation of RS 251. Prerequisite: RS 251; Every Year, Summer

## RS 260 Radiographic Physics and Instrumentation

 ( 3 cr .) This course presents an analysis of the production of X-rays and the interaction of radiation with matter, units of radiation measurements and radiation protection. Prerequisites: RS 101, RS 245; Every Year, FallRS 290 Advanced Radiographic Procedures IV (2 cr.) Radiographic and radiologic procedures related to imaging of the cranium, facial bones and sinuses, myelography, arthrography and venography are presented. Students also are introduced to other imaging modalities including mammography, bone densitometry, basic principles of computed tomography and image intensification systems. Prerequisites: RS 230, RS 231; Every Year, Spring

RS 290L Laboratory Practicum (1 cr.) This practicum develops preclinical competency in radiographic procedures studied in RS 290. (2 lab hrs.) Prerequisites: RS 230, RS 231; Every Year, Spring

RS 298 Methods of Patient Care ( $\mathbf{3}$ cr.) This course focuses on a study of skills in providing humanistic care for the well, acute or chronically ill individual, including preparing patients for invasive as well as non-invasive imaging studies; basic clinical skills in infection control, including aseptic technique, vital signs and O 2 administration; effective communication with emphasis on prob-lem-solving skills. (2 lab hrs.) Prerequisites: RS 101, BIO 101, BIO 102, MA 110; Every Year, Fall

RS 298L Methods of Patient Care Lab (0 cr.) This lab develops preclinical competency for the procedures described and demonstrated in RS 298. Every Year, Fall

RS 300 Introduction to Diagnostic Medical Sonography ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ i n t r o d u c t o r y ~ c o u r s e ~ t o ~ t h e ~ f i e l d ~ o f ~ d i a g - ~}$ nostic medical sonography discusses the role of diagnostic medical sonography in the field of radiology and the role of the sonographer. Professional ethics and legal issues pertinent to sonography are covered. Ultrasound terminology and ultrasound tissue characterization are presented. Cross-sectional anatomy of the upper abdomen in the sagittal, transverse and coronal planes utilizes schematic images and ultrasound correlation. Patient positioning, labeling of images, image orientation and scanning protocol of the upper abdomen are covered. Basic scanning techniques are introduced. Prerequisite: RS 220, RS 221 or permission of the department; Every Year, Fall

RS 318 Pathology for Imaging Sciences (RS 355) (3 cr.) This course provides an introduction to the basic study of disease, including etiology, pathophysiology and current diagnostic procedures. Normal structure and function are reviewed prior to the discussion of each anatomic system. Every Year, Spring

RS 318 Pathology for Imaging Sciences (3 cr.) This course provides an introduction to the basic study of disease, including etiology, pathophysiology and current diagnostic procedures. Normal structure and function are reviewed prior to the discussion of each anatomic system. Prerequisites: RS 210, RS 211; Every Year, Spring

RS 320 Ultrasound Physics and Instrumentation ( $\mathbf{3} \mathbf{~ c r}$.)
The course presents theoretical concepts and practical applications related to ultrasound physics and instrumentation including transducers, Doppler, static and real-time techniques. Prerequisite: RS 300; Every Year, Spring

RS 322 Introduction to Sectional Anatomy (3 cr.) The positions and graphic identification of the major blood vessels, structures and organs of the head, neck, thorax and abdomen are studied. Every Year, Fall

RS 323 Advanced Sectional Anatomy (3 cr.) This continuation of the regional anatomy considered in RS 322 includes shoulder, wrist, pelvis, hips, knee and ankle. In addition to coronal, sagittal and axial imaging examined in the previous course, oblique sections and three-dimensional reconstruction are included. Every Year, Spring

RS 330 Diagnostic Assessment ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ p r o - ~}$ vides advanced skills in patient care, venipuncture and analysis of ECG and clinical lab values. Techniques utilized for patient preparation for invasive studies, H and P, and IV drug administration and pharmacology are presented. Every Year, Fall

RS 334 Bone Densitometry ( $\mathbf{1}$ cr.) This distance learning course provides students with an overview of the history of bone densitometry as well as knowledge in the areas of osteoporosis and bone health, equipment, quality control, patient preparation and safety, and scanning. The course encompasses didactic components to cover all relevant material currently consistent with the ARRT certification examination. Prerequisite: ARRT Registered Radiologic Technologist; Every Year, Summer

RS 338 Introduction to CT Scanning ( $\mathbf{3} \mathbf{~ c r}$.) Computed tomography (CT) scanning as it pertains to diagnostic imaging is studied. Topics include principles, physics, image reconstruction, equipment, image quality, radiation dose, specialized techniques, diagnostic applications and some cross-sectional anatomy. Prerequisite: AART certification or permission of the department; Every Year, Fall

RS 338L Computed Tomography Lab I (1 cr.) The course demonstrates the principles presented in the didactic component of the course, RS 338, and enables the student to develop hands-on skills with the Toshiba Aquilion 64 slice computed tomography unit. Training includes the operation of the hardware and software components of the equipment with the objective to optimize image quality and minimize patient radiation dose. Prerequisite: AART certification or permission of the department; Every Year, Fall

RS 340 Principles of Mammography ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~}$ provides an overview of the history of mammography as well as fundamental knowledge in the areas of anatomy, physiology and pathology of the breast, mammographic equipment and instrumentation, positioning and technique for mammography. Also covered are methods of patient education and quality control. The course prepares students for the ARRT Mammography Certification Examination and meets all ACR/FDA training requirements. Prerequisite: AART certification or permission of the department; Every Year, Fall

RS 345 Women's Health and Imaging (3 cr.) This course provides a thorough look at women's health and disease with a focus on diagnostic imaging tools. Students examine common health factors for women and girls including pathophysiology, family history, socioeconomic status and diagnostic procedures (current and in research). This in-depth look at women's health brings to light reliable information on common health topics for the betterment of overall care of self, community and the health care consumer enabling the health professional to answer questions and have a general understanding of the diseases that may be encountered in health care practice. Program content is dynamic and is modified each year to represent the most current data and statistics. Permission of the department required; Every Year, Spring

RS 350 Radiologic Clinical Education IV (2 cr.) This is a continuation of RS 252. Prerequisite: RS 252; Every Year, Fall

RS 351 Radiologic Clinical Education (2 cr.) This is a continuation of RS 350. Prerequisite: RS 350; Every Year, Spring

## RS 355 Radiographic Pathology for the Practicing

 Technologist (3 cr.) This distance learning course provides an opportunity for exploring pathologic processes and conditions as it applies to the field of imaging. Topics include: hereditary diseases, specialized imaging techniques, physiology of various body systems, inflammatory disorders, infectious diseases, cancerous lesions, fractures, digestive disorders, vascular disease and traumatic processes. Prerequisite: Registered Radiologic Technologist or permission of the instructor.RS 415 Introduction to Magnetic Resonance Imaging ( 3 cr .) Magnetic resonance imaging is studied as it pertains to diagnostic imaging. Topics include mathematics, physical principles, imaging concepts, equipment, image quality, clinical applications and biologic effects of MRI. Prerequisites: AART certification or permission of the department; RS 322; Every Year, Fall

## RS 415L Magnetic Resonance Imaging Principles I-

Lab Practicum (1 cr.) This course demonstrates the principles presented in the didactic component of the course, RS 415, Introduction to Magnetic Resonance Imaging. This lab complement enables the student to develop hands-on skills with the Toshiba Vantage 1.5 Tesla Magnetic Resonance Imaging scanner. Training includes the operation of the hardware and software components of the equipment with the objective to optimize image quality. This course also influences the student's development of patient care skills dealing with claustrophobia and safety concerns regarding MRI. Prerequisite: AART certification or permission of the department.

RS 416 Advanced MRI Principles and Imaging (3 cr.) This course is designed for the student who has successfully passed RS 415 and/or for the technologist actively working in the MRI field. The main objective of this course is to expand on the basic MRI physics and advanced MRI imaging applications. Prerequisite: RS 415; Every Year, Spring

RS 416L MRI Scanning Lab II (1 cr.) This course demonstrates the principles presented in the didactic component of the course, RS 416-Advanced MRI Principles and Imaging. This lab complement enables the student to further develop hands-on skills with the Toshiba Vantage 1.5 Tesla Magnetic Resonance Imaging scanner and expand upon the basic MRI physics and advanced imaging applications. Training includes the operation of the hardware and software components of the equipment with the objective to optimize image quality. This course also influences the student's continued development of patient care skills dealing with claustrophobia and safety concerns regarding MRI. Every Year, Spring

RS 450 Forensic Imaging I (1 cr.) Students are introduced to forensic radiography and photography. Methods and procedures are studied to properly perform and document a forensic examination. Every Year, Fall

RS 451 Forensic Imaging Lab (1 cr.) This practical course employs procedures for radiography, photography and autopsy and/or necropsy of specimens. (1 lab hr.) Every Year, Fall

RS 452 Forensic Imaging II ( 1 cr .) This course is a continuation of RS 450. Every Year, Fall

RS 453 Forensic Imaging-Clinical (1 cr.) This course links theory presented in RS 450 and RS 452 with clinical applications at the Office of the Chief Medical Examiner for the state of Connecticut. Students participate in obtaining radiographs from homicides, suicides, burn victims, decomposed bodies and sudden infant deaths. Prerequisites: RS 450, RS 451, RS 452; Every Year, Fall

RS 454 Forensics Imaging Seminar ( $\mathbf{3}$ cr.) This seminarstyle course consists of a series of lectures given by professionals from various areas of forensic practice and expertise. Students are introduced to a wide variety of topics such as forensic photography, anthropology, death investigation, paleoimaging and forensic CT and MRI applications. Every Year, Spring

## RS 460 Pathology for CT and MRI Technologists

( $\mathbf{3} \mathbf{c r}$ ) This course covers identification, pathophysiology and pattern recognition of common pathologies observed in computed tomography and magnetic resonance imaging. Normal and abnormal comparisons are presented. Prerequisite: RT(R) or RS 322 or permission of the department; Every Year, Spring

RS 470 Ultrasound of the Abdomen (3 cr.) This course is designed to prepare the student toward eligibility for the abdomen (AB) portion of the ARDMS Registry. The course encompasses all aspects of abdominal scanning including: anatomy and vasculature, normal variants and congenital abnormalities, pathology, organ function and laboratory tests, and scanning methods and practical tips. Prerequisite: RS 320; Every Year, Summer

RS 470L Abdominal Sonography Lab ( 0 cr.) Lab to accompany RS 470. (3 lab hrs.) Every Year, Summer

## RS 471 Gynecological and Peripheral Sonography

( 3 cr .) This course is designed to prepare the student toward eligibility for the gynecological portion of the obstetrical (OB) portion of the ARDMS Registry and the peripheral structures portion of the abdominal (AB) portion of the ARDMS Registry. The course encompasses all aspects of gynecological and peripheral scanning including: anatomy and vasculature, normal variants and congenital abnormalities, pathology, organ function and laboratory tests, and scanning methods and practical tips. Prerequisite: RS 470; Every Year, Fall

## RS 471L Gynecological and Peripheral Sonography

 Lab (0 cr.) Lab to accompany RS 471. (3 lab hrs.) Every Year, FallRS 472 Obstetrics Sonography ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of the objectives and applications of RS 471 with emphasis on the obstetrical portion of the ARDMS Registry. The course encompasses anatomy
and vasculature, normal and congenital abnormalities, pathology and advanced scanning methods. Prerequisite: RS 471; Every Year, Spring

RS 472L Obstetrics Sonography Lab (0 cr.) Lab to accompany RS 472. (3 lab hrs.) Every Year, Spring

RS 473 Breast Sonography ( $\mathbf{3} \mathbf{c r}$ ) This course is geared toward students who are pursuing breast certification by the ARRT or the ARDMS. To produce high-quality diagnostic images, it is necessary for students to have a thorough understanding of the anatomy and physiology of the breast, as well as the normal and abnormal sonographic appearance of breast tissue. Students have an opportunity to utilize ultrasound equipment to learn to identify sonographic anatomy of the breast and develop scanning techniques. Prerequisite: diagnostic imaging majors, who are registered radiologic technologists with the ARRT or medical sonography students, who have successfully completed RS 320. Exceptions require permission of the department. Prerequisite: RS 320; Every Year, Fall

RS 473L Breast Sonography Lab (1 cr.) This course is geared toward mammographers who are pursuing breast certification by the ARRT, as well as sonographers who are pursuing breast certification by the ARDMS. To produce high-quality diagnostic images, it is necessary for students to have a thorough understanding of image orientation, acoustic properties, scanning techniques and image documentation. Students have an opportunity to utilize ultrasound equipment to learn to identify sonographic anatomy of the breast and develop scanning techniques. The students learn to review and compare sonographic and mammographic images. Every Year, Fall

RS 480 Medical Sonography Clinic I (2 cr.) This practical course links theory presented in RS 320 and RS 470 with clinical applications. The course is designed to provide experience and develop proficiency with ultrasound scanning methods, protocols and utilization of equipment under the supervision of certified medical sonographers. Prerequisite: RS 470; Every Year, Summer

RS 481 Medical Sonography Clinic II (2 cr.) This course is a continuation of RS 480. Prerequisite: RS 480; Every Year, Fall

RS 482 Medical Sonography Clinic III (2 cr.) This course is a continuation of RS 480 and RS 481. Prerequisite: RS 481; Every Year, Spring

## RS 483 Breast Sonography Clinical Practicum (2 cr.)

This course provides a clinical experience over a 15 -week period. Students are required to attend clinical three days per week. Application of skills related to patient care and management, radiographic pattern recognition and procedural variances are employed. Students gain invaluable
experience needed for the American Registry of Radiologic Technologists certification examination. Prerequisites: RS 473, RS 473L; Every Year, Spring

RS 492 Ethical Behavior in Imaging Sciences (2 cr.) This distance-learning course provides an opportunity for exploring ethical and legal issues as they pertain to the practice of diagnostic imaging. Topics include ethical theory, behavior and dilemmas, legal responsibilities, informed consent, diversity and overview of future challenges as they apply to real-life situations in health care. Prerequisite: Registered Radiologic Technologist or health and science studies major or permission of instructor; Every Year, Summer

RS 497 Directed Studies in Diagnostic Imaging (1 cr.) This distance-learning course emphasizes individualized studies of various topics related to the field of diagnostic imaging with introductions to research methodologies and development of basic professional level communication and writing skills. The results of these developed topics are presented by the student throughout the course. Every Year, Summer

RS 498 Imaging Seminar ( $\mathbf{1}$ cr.) This seminar is designed to provide an overview of the field of imaging with emphasis on new developments in procedures, equipment and professional requirements for advanced responsibilities. Every Year, Spring

Courses offered as needed
RS 352 Radiologic Clinical Education (2 cr.) Prerequisite: RS 351
RS 401 Quality Management in Diagnostic Imaging ( 3 cr.) Prerequisite: RS 245
RS 401L Quality Management in Diagnostic Imaging Lab (0 cr.)
RS 414 Research: Analysis and Critique (3 cr.) Prerequisite: RS 497
RS 417 Clinical Practicum: MRI (1 cr.)
RS 418 Clinical Practicum: MR I (2 cr.)
RS 419 MRI Clinical Practicum II (2 cr.) Prerequisite: RS 417
RS 421 Non-traditional Applications of Diagnostic Imaging (1 cr.)
RS 422 Non-traditional Applications of Diagnostic Imaging ( 1 cr .)
RS 425 Cadaver Imaging ( 1 cr.)
RS 430 Clinical Practicum: Mammography I (2 cr.)
RS 431 Clinical Practicum: Mammography II (2 cr.)
RS 434 Advanced Clinical Education: Cardiovascular Interventional Procedures (CVIT) (2 cr.)
RS 438 Clinical Practicum: Computed Tomography (CT) I (2 cr.)
RS 439 Clinical Practicum: Computed Tomography (CT) I I (2 cr.)
RS 440 Artifact Imaging Practicum (1 cr.)

RS 465 Advanced Imaging II: Equipment and Instruments ( 3 cr .)<br>RS 489 Independent Study ( 1 cr .)<br>RS 491 Open Topic ( 1 cr.)<br>RS 493 Open Topic ( 3 cr .)<br>RS 499 Senior Thesis (3 cr.)

## Drama (DR)

DR 101 (UC) Understanding Theater ( $\mathbf{3} \mathbf{~ c r}$.) This course presents an introduction to the practices and purposes of theater through play going, readings in theater history, dramatic theory and stage production work. Every Year, All

DR 140 Stagecraft ( 3 cr.) This course provides an introduction to the theory, techniques, materials and equipment of theater technology. Participants focus on the principles and practice of set and costume construction, scenery painting, the nature and use of electricity, lighting and sound equipment, tools and their safe usage, technical production organization and management. Materials are presented in a lecture format with extensive practical work, which is arranged by the instructor on an individual student basis (usually 2 hours per week). As part of the course, students are required to participate in technical production work for two productions during the semester. Every Year

DR 150 Performance Fundamentals (3 cr.) This course provides an introduction to those basic vocal, physical and improvisational skills necessary for successful performance in a variety of areas. Skills to be emphasized include vocal support and projection, physical relaxation and focus, diction, articulation and improvisational techniques. Students interested in broadcast journalism, newscasting, public relations and advocacy, as well as more theatrical areas of public performance, learn to work effectively in front of an audience while maintaining focus and energy. Every Year, All

DR 160 Acting I ( 3 cr.) Students are introduced to the basic principles of acting, including scene analysis, motivation, intention and character work. Students perform exercises, monologues and scenes. The class may work in collaboration with a mass communications video production class in taping short scenes on video. Every Year, All

DR 191 Theater Practice I (1 cr.) All basic theater components through the active production of a full-length play are studied in this course. Students may participate as actors, designers, stage managers, assistant directors, dramaturges and in various production roles. (Minimum 40 hours production work; process journal.) Every Year, All

DR 200 Special Topics ( $\mathbf{3} \mathbf{c r}$.) This course focuses on a specialized area of theater study. Past topics have includ-
ed scenic and lighting design and special topics in theater history and dramatic literature. Course may be repeated for credit. Every Year

DR 210 Hands On: An Introduction to Puppetry (3 cr.) Students learn the art of puppetry by studying the theory and history of the form. They actively participate in the creation and manipulation of various forms of puppets. Prerequisite is waived if student has taken any 100or 200-level studio art course. Prerequisite: DR 101; Every Year, Fall

DR 220 Voice and Movement ( 3 cr ) This course covers practical laboratory work in vocal production and movement, utilizing developmental techniques of Kristen Linklater, Alexander Feldenkrais, Jerzy Grotowski, Michael Chekhov, with special emphasis on individual coaching and problem solving. Studio work also may include techniques of characterization, including neutral and character mask exploration, work with classical texts, and acquisition of dialect skills. Prerequisite: DR 101 or DR 160; Every Year

DR 230 Directing for the Theater ( 3 cr ) This course serves as an introduction to the craft of the theatrical director. Topics include play analysis and interpretation, director's concept, visual composition and the history and theories of directing. Also included: methods of actor coaching, rehearsal techniques and working with the creative team of designers, dramaturges and production staff. As a final project, each student directs a scene or one-act play that is presented in a student workshop performance at the end of the semester. Prerequisite: DR 101 or DR 160; Every Year

DR 240 Introduction to Scenic and Lighting Design ( 3 cr .) Students learn about the creation of scenic and lighting design for the live theater by completing projects in which they formulate a design concept for specific plays. The role of design in theatrical production is approached from a hands-on, as well as theoretical, perspective. Students learn basic skills of drafting, light hang and focus and the use of a computerized lighting board. The black box theater functions as a laboratory space for the practical aspects of the course. Every Year

DR 260 Acting for Film/TV ( $\mathbf{3} \mathbf{~ c r}$.) This is an intermediate studio course in which students gain experience in the specialized performance skills demanded by the film and television mediums. Students work on monologues and scenes that emphasize truth and emotional reality and receive training in the techniques of Stanislavski, Lee Strasberg and Sanford Meisner. When scheduling permits, students in Drama 260 collaborate with a mass communications video production class in filming/taping acting scenes. Prerequisite: DR 160; Every Year

## DR 270 (UC) World Theater History and Dramatic

 Literature I ( $\mathbf{3} \mathbf{~ c r . ) ~ I n ~ t h i s ~ c o u r s e , ~ s t u d e n t s ~ i n t e g r a t e ~ a ~}$ multicultural history of world theater with the study of performance traditions and dramatic literature. Participants study the ritual foundations of theater through the theater of the early Renaissance period, emphasizing the importance of historical and literary research in devising actual production concepts for period plays. Students apply their knowledge in active and creative projects. Does not have to be taken in sequence with DR 275. Prerequisite: DR 101; Every Year
## DR 275 (UC) World Theater History and Dramatic

Literature II (3 cr.) Students trace the development of theater from the Renaissance through the late 19th century and the beginning of modern drama. This study of performance traditions and dramatic literature emphasizes the importance of locating dramatic literature within its cultural, social and historical contexts. An understanding of theater history and literature is applied to creative projects in which students develop concepts for staging plays chosen from the course reading list. Does not have to be taken in sequence with DR 270. Prerequisite: DR 101; Every Year

## DR 286 (UC) Comparative Drama/Play Analysis (3 cr.)

Selected motifs and structures in drama are examined. Plays with common themes are compared to illuminate differing playwriting strategies. Comparative method cuts across rigid chronological and geographic compartments. The course includes visits to area theaters. Prerequisite: DR 101 or EN 102; Every Year

DR 291 Theater Practice II (3 cr.) All basic theater components through the active production of a full-length play are studied in this course. Students may participate as actors, designers, stage managers, assistant directors, dramaturges and in other production roles. (Minimum 80 hours of student involvement, rehearsal journal and research project). Every Year, All

DR 305 Theater for Young Audiences (ED 362) (3 cr.) This seminar course allows students to explore various aspects of creating theater for young audiences. Performance skills in improvisation and creative dramatics, adaptation of fairy tales, folklore and other children's literature for plays, and the integration of drama into classroom curriculum are emphasized. Students conduct enrichment workshops at participating area schools and/or perform for young audiences in staged readings, workshops and/or fully mounted productions. Community outreach and service learning are emphasized. Prerequisite: DR 101; Every Year

DR 306 Modern Drama (EN 306) (3 cr.) Students are introduced to principal movements in continental, British and American drama from Ibsen to the present.

Emphasis is on the main currents of modern dramatic development through the critical analysis of representative plays. Prerequisites: two courses from EN level 200; Every Other Year

DR 307 Drafting and Rendering for Theater ( 3 cr ) This studio course explores the graphic techniques used by theatrical designers. Students learn to implement architectural lettering, generate hand drafting of ground plans and detail drawings, and effectively master color blending, rendered painting of surface materials, and threedimensional rendering. Students use acrylic paints and pencil drafting tools. During the course, students build a professional portfolio of work. Every Year, Spring
DR 310 Laboratory in Theater and Community ( 3 cr.) Students investigate the potential for theater and performance to be catalysts for social change. The class explores how theater has been an effective site for cultural and political interventions. Moving from theory to practice in the staging of a socially-resonant piece of theater, students explore the ways in which theater may be used to articulate community conflict and to facilitate dialogue, and also examine the practical and ethical issues confronted by those who engage in theater for social change. This course is repeatable for credit. Prerequisite: one group: DR 101; one course from HS, PO, DR or SO level 200; Every Other Year, Spring

DR 325 Theater Seminar (3 cr.) Students explore artistic, dramaturgical and production issues associated with the realization of a regional theater's season. Students read scripts produced during a particular semester by an area professional theater and attend technical/dress rehearsals and performances. Guest artists from the theater visit campus. Students also attend symposiums and other outreach programming offered by the theater. The seminar provides a forum for discussing the multifaceted process of selecting a regional theater season, formulating production concepts, conducting dramaturgical research, assembling artistic teams and realizing dramatic texts on stage. Prerequisite: DR 101; Every Other Year

DR 335 Musical Theater Performance ( $\mathbf{3} \mathbf{~ c r}$.) In this studio course, students gain expertise in the special skills and techniques necessary to perform in the musical theater style. Each student performs solo, duet and trio musical theater selections with CD accompaniment. (Music is provided; however, students may choose a different solo piece, provided they have the accompaniment track or access to a pianist.) As a culminating exercise, students select pieces drawn from the semester's performance exercises, and these pieces are performed with appropriate costumes, props and choreography in a public cabaret setting. Prerequisites: DR 160; one course from DR level 200; Every Year, Fall

DR 340 Scenic Design ( $\mathbf{3}$ cr.) This course explores the principles of scenic design with emphasis on drawing, painting, drafting and model making. Students develop three-dimensional design solutions for an array of scenic situations through the conceptualization of spatial relationships. Prerequisites: DR 140, DR 307; Every Other Year, Fall

DR 341 Lighting Design for the Theater (3 cr.) This course provides hands-on experience with the technical and design elements of stage lighting. Students use equipment and techniques directly relating to the theatrical productions scheduled in a given semester, using an artistic and collaborative approach and working with lighting systems in a theater. Prerequisites: DR 140, DR 307; Every Other Year, Spring

DR 342 Costume Design ( $\mathbf{3}$ cr.) This course provides an introduction to the theory, techniques, materials and equipment of costuming. Participants focus on costume construction, fabric, fasteners, sewing machine use, dyeing techniques and costume design. Extensive practical work is completed on an individual student basis. Students participate in costume construction for two productions during the semester. Every Other Year, Fall

DR 343 Shakespeare (EN 343) ( 3 cr.) This course presents a structural and thematic analysis of Shakespearian drama, with readings in contemporary drama and selected problems of scholarship, criticism and performance. Prerequisite: one course from EN level 200; Every Year, All

DR 345 Dance for the Musical Theater (3 cr.) Students learn musical theater dance styles and choreography through studio performance. As a culminating exercise, students select dance pieces to perform with appropriate costumes, props and choreography in a cabaret setting open to the public. Prerequisites: DR 160; one course from DR level 200; Every Year, Spring

DR 350 Playwriting ( 3 cr.) The course explores a wide range of playwriting strategies, exercises in technique and innovative methods through which new playwrights may begin to develop an individual voice and unique style capable of communicating their visions. Students read well-known plays of the modern era, analyzing the ways in which individual playwrights have employed conventional and unconventional structures in telling their stories. Students also complete a series of writing exercises designed to develop specific skills. As a culminating exercise, each student produces an original, one-act play. Prerequisites: EN 101, DR 101; Every Other Year

DR 360 Advanced Acting (3 cr.) In this advanced studio course, student actors use exercises in acting technique to deepen and refine their ability to create reality on stage. The techniques portion of the class consists of
exercises and theories drawn from the work and writings of Stanislavski, Strasberg, Meisner, Hagen, Adler, Lewis and Chekhov. Students explore the skills necessary to create a sense of truth on stage, whether working with realistic texts or those drawn from non-realistic and classical theater. Prerequisite: DR 160; Every Other Year, Fall

## DR 370 Internship in Theater Administration, Production, Performance, Education, or Theater and Community ( 3 cr .) Junior or senior theater majors com-

 plete a semester-long or summer-long internship in their focus area. Possible internship sites include education and humanities departments of regional and professional theaters, public schools, social service agencies, administration and production departments of professional and regional theaters; and professional theaters in the New York/New England area offering internship programs in performance. Prerequisite: Junior or Senior status in the major. Every Year, All
## DR 375 History and Dramatic Literature of the Con-

 temporary Theater ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ a d v a n c e d ~ s e m i n a r ~ c l a s s ~}$ encompasses a socio-historical study of dramatic literature and theory from the beginnings of the modern era to the present with an emphasis on relevance to contemporary performance techniques. The course examines such movements as realism, naturalism, futurism, symbolism, expressionism, surrealism, constructivism and absurdism, studying the texts, artists and critics of the modernist and post-modernist movements in an attempt to locate contemporary theater within its social, historical and political contexts. Prerequisite: DR 101; Every Other YearDR 380 Theater Administration (3 cr.) Students explore the economic and managerial aspects of American theater as they apply to the nonprofit professional theater. At the completion of the course, students are able to create a mission statement and marketing plan, and have a general understanding of budgeting reports, unions, laws and the roles of the government and the public in an arts organization. The Long Wharf Theatre in New Haven functions as a laboratory for student learning in this course, which is taught by a Long Wharf professional staff member. Prerequisite: DR 101; Every Year

DR 391 Theater Practice III ( 3 cr .) All basic theater components through the active production of a fulllength play are studied in this course. Students play substantial roles in the production, either acting in a major role or taking on a major production responsibility (e.g., stage manager, assistant director, student designer).
(Minimum 120 hours of student involvement, rehearsal journal and substantive dramaturgical/research project). Every Year, All

DR 410 Senior Project ( 3 cr .) This senior project in the theater major's chosen focus area may be research, produc-
tion or performance-based, but must entail both analytic and creative endeavor involving substantial research, analysis and writing. A public presentation or performance is required. Depending upon their focus area, theater majors may opt to complete DR 300 Laboratory in Theater and Community as the senior project. A directed study, this course is the capstone experience for all theater majors. Prerequisite: Senior status in the major. Every Year, All

Courses offered as needed<br>DR 181 Improvisational Acting (3 cr.)<br>DR 290 Acting for Classical Stage (3 cr.) Prerequisite: DR 160<br>DR 300 Special Topics ( 3 cr.) Prerequisite: DR 140<br>DR 320 Advanced Voice and Movement ( 3 cr.) Prerequisites: DR 101, DR 160, DR 220<br>DR 330 Advanced Directing ( 3 cr.)<br>Prerequisite: DR 230, DR 101 or DR 160<br>DR 386 Modern Drama (3 cr.) Prerequisite: DR 101 DR 387 Contemporary Drama ( 3 cr.)<br>Prerequisite: DR 101; EN 240, EN 250, EN 260, EN 270, EN 275, EN 280 or EN 281<br>DR 390 Acting and Directing for Video ( 3 cr .) Prerequisite: DR 160 or DR 260

## Economics (EC)

EC 111 (UC) Principles of Microeconomics (3 cr.) This course examines scarcity and choice, demand and supply, government price setting and taxes, elasticity, production and cost, and the theory of the firm. A writing component is required. Every Year, Fall and Spring

EC 111H (UC) Honors Principles of Microeconomics ( 3 cr .) This examination and application of basic economic theory considers scarcity and choice, demand and supply, elasticity, consumer theory, firm theory and market structure. A writing component is required.

EC 112 (UC) Principles of Macroeconomics (3 cr.) This course examines the determinants of national income, unemployment and inflation. Students learn how fiscal policy and monetary policy influence these variables. A writing component is required. Prerequisite: EC 111; Every Year, Fall and Spring

EC 206 Urban Economics (3 cr.) This course provides an economic analysis and evaluation of urban problems organized around the inherent conflict between private enterprises and the maintenance of the quality of life in urban areas. Economic factors in growth of cities and metropolitan areas are explored. Topics include the location of economic activity, land use patterns and transportation, combating poverty and poor housing, provision of adequate health care, organization and financing of public activities and problems of decline and growth. Prerequisite: EC 112; Every Other Year, Spring

EC 211 Intermediate Microeconomics (3 cr.) This advanced analysis of microeconomic theory includes study of consumer theory with use of indifference curves and budget constraints, firm theory with use of isoquants and isocosts, market structures and market failures. A knowledge of calculus is helpful. Prerequisite: EC 112; MA 107, MA 110, MA 117, MA 118, MA 140 or MA 141; Every Year, Spring

EC 212 Intermediate Macroeconomics (3 cr.) This course helps students to understand two phenomena: long-run growth and business cycles. The section of the course devoted to long-run growth emphasizes the importance of technological change for increasing the standard of living. The section devoted to business cycles emphasizes the causes of these cycles and the roles of fiscal and monetary policy in preventing business cycles. Computer assignments using spreadsheet or statistical software are an essential part of this course. Prerequisite: EC 112; MA 107, MA 110, MA 117, MA 118, MA 140 or MA 141; Every Year, Fall

EC 250 International Economics (3 cr.) This course examines international trade theories, trade policies, exchange rate determination models and macroeconomic policies in open economies. Prerequisite: EC 112; Every Year, Fall

EC 271 Applied Statistical Methods (3 cr.) This course statistical methods and concepts used in decision making. Topics include descriptive statistics, sampling, estimation, hypothesis testing, correlation and linear regression. Prerequisite: MA 107, MA 118 or MA 141; Every Year, All

EC 304 Environmental Economics (3 cr.) This course examines economic efficiency both in market and nonmarket activities, how environmental problems are modeled from an economic perspective, principles of environmental policy design at the state and federal level and U.S. and international environmental policy. Prerequisite: EC 112; Every Other Year, Spring

EC 320 Law and Economics ( 3 cr .) This course covers the application of microeconomic theory to the law. Topics covered include the efficiency and welfare aspects of property rights, contract law, torts and criminal law, and the impact of changes in the law on economic agents. Prerequisite: EC 112; Every Other Year, Fall

EC 325 Sports Economics (SPS 325) (3 cr.) The primary focus of this course is professional sports; microeconomic foundations of sports economics, industrial organization of the sport industry, antitrust and regulation, financing sports stadiums, labor issues, and the economics of college sports. Prerequisite: EC 112; Every Other Year, Fall and Spring

EC 330 Public Finance (3 cr.) This course examines the role of government in the economy. Tools of economic analysis are applied to government taxation and expenditure policies. The efficiency and welfare implications of government intervention in the economy are analyzed. Prerequisite: EC 112; Every Other Year, Fall and Spring

EC 341 Money and Banking ( 3 cr.) This examination of the institutions and theory of monetary systems considers the domestic and international macroeconomic impacts of changes in monetary policy. Prerequisite: EC 112; Every Other Year, Spring

EC 352 Industrial Organization (3 cr.) Market structures are examined with an emphasis on the imperfectly competitive markets. Market failures and regulation and antitrust also are considered. Prerequisite: EC 112; Every Other Year, Fall

EC 361 Labor Economics (3 cr.) This course examines the application of microeconomic theory to labor markets and also considers, unions, labor market, immigration, discrimination and other topics. Prerequisite: EC 112; Every Other Year, Spring

EC 365 Econometrics ( 3 cr .) This course provides an introduction to the statistical methods and tools used in applied economic research. Topics include model specification estimation, and inference in the simple and multivariate regression model. The use of statistical software is required. Prerequisites: EC 112, EC 271; Every Year, Spring

EC 412 Economic Growth ( 3 cr.) This course discusses the determinants of long-run economic growth. In particular, it discusses how government policy promotes and inhibits economic growth. The course is a combination of analytical models, empirical facts and policy discussion. Prerequisite: EC 112; Every Other Year, Spring

EC 452 Game Theory ( $\mathbf{3} \mathbf{c r}$.) Applied game theory analysis of real-world strategic environments in economics and business. Topics include: Normal form games, Nash equilibrium, mixed strategies, repeated games, sequential games with perfect and imperfect information, sub-game perfect equilibrium, and principal-agent problems. Prerequisite: EC 112; Every Other Year, Spring

## Courses offered as needed

EC 363 American Economic History (3 cr.) Prerequisite: EC 112
EC 364 Managerial Economics (3 cr.) Prerequisite: EC 112
EC 366 Advanced Econometrics (3 cr.) Prerequisite: EC 365
EC 498 Special Topics in Economics (3 cr.)

## Education (ED)

ED 250 (UC) Diversity, Dispositions and Multiculturalism ( $\mathbf{3} \mathbf{~ r r}$ ) This course examines the social, economic and political organization of public education in the U.S., with a particular emphasis on the implications for historically marginalized populations. The course explores diversity and multiculturalism on the individual as well as institutional level through the lens of schools and classrooms, with a focus on concepts such as privilege, discrimination, racism and social transformation. Students engage in critical inquiry of a wide range of texts including narrative, demographics and research on multicultural education. Students learn and employ perspectives and methodologies specific to educationincluding self-reflection, case study, and critical ethnography, as well as quantitative data analysis-to understand and analyze key course concepts including self, others, success, failure, truth, culture and multicultural education. Prerequisite: EN 102; Every Year, Fall

## ED 260 (UC) Social and Philosophical Foundations of

 Education (3 cr.) This course is designed to introduce students to the social and philosophical principles that underlie the education system in the United States. Education is defined in the broad sense to refer to not only what happens in schools and universities, but also in the family, when people interact with media, with their social groups and so forth. The course examines a wide range of philosophical questions related to education and schooling in the United States, including: What is the purpose of education? What does it mean to be educated? What does the history and culture of public education in the United States suggest about our values, ideals and aspirations? What role do/should schools, family, media and other social institutions play in our lives as individuals and as a society? Prerequisite: EN 102; Every Year, SpringED 301 Elementary Field Study I (3 cr.) Students gain experience in an elementary school setting. They explore the complexities of the work of teachers and develop skills in ethnographic field observation as a tool for reflection and research. This course requires 20 hours of fieldwork over 10 weeks. Admission to the MAT program is required. Every Year, Fall

ED 302 Elementary Field Study II (3 cr.) Students gain experience in an elementary school setting. They analyze the conceptual and chronological development of the American public school system and examine multiple ways of interpreting historical events and their impact on schooling. This course requires 20 hours of fieldwork over 10 weeks. Prerequisite: ED 301; Every Year, Spring

ED 310 Field Study I (3 cr.) Students gain experience in a middle school or high school setting. They explore the
complexities of the work of teachers and develop skills in ethnographic field observation as a tool for reflection and research. The course requires 20 hours of fieldwork over 10 weeks. Admission to the MAT program is required. Every Year, Fall

ED 311 Field Study II (3 cr.) Students gain experience in a middle school or high school setting. They analyze the conceptual and chronological development of the American public school system and examine multiple ways of interpreting historical events and their impact on schooling. This course requires 20 hours of fieldwork. Prerequisite: ED 310; Every Year, Spring

## ED 315 Diversity, Dispositions and Multiculturalism

( 3 cr .) This course helps students understand that teaching is a social enterprise laden with moral responsibility and that, as teachers, they must be willing to act as agents for social justice in their classrooms and in their schools. Students acquire the dispositions, cultural knowledge and competencies to adapt their curriculum and instructional skills for culturally responsive classroom practice. Admission to the MAT program is required. Every Year, Fall

ED 320 Social and Philosophical Foundations of Education (3 cr.) This course introduces students to the field of education through the linking of some of the philosophical and social foundations of education to the students' own pedagogical experiences. Recognizing that teaching is a holistic process, students have an opportunity to analyze the ways in which these foundations are related to pedagogical practice. Specifically, this course challenges students to examine critically many of the assumptions and goals regarding teaching and learning in light of some of the central historical ideas on education. Prerequisite: ED 301; Every Year, Spring

ED 325 Diversity in the Classroom ( $\mathbf{3} \mathbf{~ c r}$.) This course helps students understand that teaching is a social enterprise laden with moral responsibility and that, as teachers, they must be willing to act as agents for social justice in their classrooms and in their schools. Students acquire the dispositions, cultural knowledge and competencies to adapt their curriculum and instructional skills for culturally responsive classroom practice. Admission to the MAT program is required. Every Year, Fall

ED 401 Elementary Field Study III (3 cr.) Students gain experience in an elementary school setting. Participants develop an understanding of lesson planning and objective designing to ensure that every student learns. Students also become familiar with the state standards and grade level equivalent learning goals as they relate to high-stakes testing and outcomes-based education. This course requires 20 hours of fieldwork over 10 weeks. Prerequisite: ED 302; Every Year, Fall

ED 402 Elementary Field Study IV (3 cr.) Students gain experience in an elementary school setting. Participants engage in self-evaluation and reflection on their ability to implement successful instruction in a small group setting. In addition, they assess and evaluate student work samples as an integral process of implementing a diag-nostically-based instructional model. This course requires 20 hours of fieldwork over 10 weeks. Prerequisite: ED 401; Every Year, Spring

ED 408 Classroom Environment (3 cr.) This course explores how to create a classroom environment that is conducive to learning for all students. The spectrum of theories of classroom discipline is explored with special emphasis on the theory of discipline with dignity. Prerequisite: ED 311; Every Year, Fall

ED 412 Field Study III (3 cr.) Students gain experience in a middle school or high school setting. Participants evaluate the ethical choices teachers make and analyze the effects of these choices on students and the school community. Also, students engage in self-evaluation and assess their value-laden perspectives in light of the professional code of teacher responsibilities. This course requires 20 hours of fieldwork over 10 weeks. Prerequisite: ED 311; Every Year, Fall

ED 413 Field Study IV (3 cr.) Students gain experience in a middle school or high school setting. Participants discuss the teacher's responsibility to communicate with parents and community agencies to promote $\mathrm{K}-12$ students' learning and well-being. Also, students develop problem-solving skills to ensure that every student learns. This course requires 20 hours of fieldwork over 10 weeks. Prerequisite: ED 412; Every Year, Spring

## ED 421 Social and Philosophical Foundations of

 Education (3 cr.) This course is an inquiry into the institutional structures, social values and philosophical foundation of education. Teacher and student reflections focus on issues pertaining to the teaching-learning process, including freedom/authority/discipline; cultural diversity; multiplicity of learning modes; mind-body integration; community; alienation/violence; sexism/racism/elitism; and teacher/student roles. Prerequisite: ED 310; Every Year, Spring
## ED 436 Teaching Literacy in the Primary Grades (3 cr.)

 This course provides knowledge of diagnosis, assessment and instruction strategies for the development of early literacy in Grades K-3. Emphasis is on the development of teaching strategies necessary for the success of early readers and writers. Prerequisite: ED 401; Every Year, Spring
## ED 440 Learning and Teaching in the Elementary

Classroom (3 cr.) This course explores how learning theory and philosophy are linked to the teaching-learning
process. Students investigate elementary curricula and ways teachers plan units, lessons and assessment of learning to meet the learning needs and styles of their pupils. National elementary curriculum benchmarks from learned societies are used to reflect upon the content and appropriate learning opportunities in grades K-6 elementary classrooms. Students prepare units, lessons and assessment activities. Prerequisite: ED 302; Every Year, Fall

## ED 441 Elementary Classroom Management and

 Design (3 cr.) This course focuses on the philosophy and practice of behavioral theory and applied behavior analysis as they relate to teaching in the elementary classroom. Students plan a nurturing learning environment and explore teacher behaviors that foster learning, independence and appropriate behavior for elementary children. Prerequisite: ED 302; Every Year, Fall
## ED 468 Teaching Mathematics in the Primary Grades

 ( 3 cr .) This course introduces students to the instructional methods and curricular materials used to enhance the instruction of mathematics in the primary grades. Students learn to develop lesson plans and assessment methods that positively affect the learning of mathematics in grades $\mathrm{K}-3$. Students are required to apply this knowledge within their field placement to better understand the relationship of theory and practice in the instruction of mathematics in the lower elementary grades. Prerequisite: ED 401; Every Year, SpringED 482 Special Education ( 3 cr .) This course focuses on the characteristics of students with exceptionalities as well as methods of meeting these students' educational needs in the general education classroom. The course is concerned with providing prospective teachers with an understanding of the growth and development of students with disabilities as well as students with particular gifts and talents, and the particular needs of students for whom English is a second language. Prerequisite: ED 412; Every Year, Spring

## Engineering (ENR)

## ENR 110 Flying Buttresses, Hybrid Cars, and iPads:

 The World of an Engineer (3 cr.) This course introduces students to the study and practice of engineering, including overviews of specific disciplines. Participatory focus involves group design projects, hands-on learning, computer work, team building and engineering ethics discussions. Every Year, Fall and Spring
## ENR 210 Engineering Economics and Project

Management ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i n t r o d u c e s ~ t h e ~ c o n c e p t s ~}$ of economics/finance/costing and explains how these affect the engineering functioning and contribute to
decision making in engineering operations. A portion of the course introduces the concepts of project management, team building and leading teams that are used throughout the program and in professional practice. Prerequisite: EC 111; Every Year, Spring

ENR 490 Engineering Internship (3 cr.) Students gain experience employing engineering skills in a professional setting under the guidance of practicing engineers. Students must obtain approval and register prior to starting the work experience. Prerequisite: Must have completed 3rd year engineering curriculum for major or approval of department chair. Every Year, Summer

ENR 495 Professional Development Seminar (3 cr.) This course uses discussions, case studies and guest speakers to introduce topics on engineering professionalism, ethics and licensure, as well as relevant innovations in engineering to prepare students to enter the workplace as engineering professionals. Prerequisite: ENR 490; Every Year, Spring

## Civil Engineering (CER)

CER 210 Infrastructure Engineering (3 cr.) This course identifies, analyzes and assesses built infrastructure, which is the foundation for modern society. Students investigate the complex and interconnected nature of infrastructures and calculate the demands on critical components. They explore the nontechnical factors necessary for the functioning of infrastructure including supplies, trained personnel, and cross-sector dependencies. The course provides a basis for understanding the complexity and cost of maintaining, rebuilding and developing infrastructure. Major blocks of instruction include water and wastewater, power, transportation, solid waste, communications systems and public administration. Several in-class scenarios are provided to synthesize the connectivity between the major items of infrastructure. Every Year, Fall

CER 220 Civil Engineering Site Design (4 cr.) This course provides the necessary background for students to select and develop sites for civil engineering structures as well as review the work of others. Proper site selection and engineering have a significant impact on the economics of a project and long-term utility of the constructed facility. Specifically, the course covers the skills of determining site layout and access, establishing site contour and drainage, installation of utilities, elementary surveying, creation of drawings using a computer-aided drafting package, and the development of environmental impact statements. In the theater of operations, this background is critical to the success of missions related to the construction of roads, runways, base camps and other engineered military works. Every Year, Fall

CER 230 Introduction to Surveying (3 cr.) This course provides an introduction to horizontal and vertical distance measurement, angles and direction and traverses. Students also learn to interpret and understand construction surveys, and coordinate systems and land records, as well as office and field practice. Every Year, Spring

CER 310 Structural Analysis (3 cr.) This course addresses the analysis and design of basic structural forms such as beams, trusses and frames, which are found in bridges and buildings. Classical deflection techniques such as direct integration and virtual work; and indeterminate analysis techniques such as the force method and displacement methods (slope deflection, direct stiffness and moment distribution) are used to determine forces and deflections in elastic structures. Structural analysis computer programs are introduced and directly applied in the solution of graded analysis and design problems. Approximate analysis techniques are used to check the general accuracy of computer-based results. Prerequisite: MER 220; Every Year, Spring

CER 320 Design of Reinforced Concrete ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~}$ course introduces the materials and mechanical properties of concrete, and the design of reinforced concrete structures. Mix design and strength testing labs develop the concept of proportioning constituents for quality concrete and provide a background in techniques of material testing, quality control and sound construction practices. The study of reinforced concrete includes analysis and design of simple structures, resulting in an appreciation for the strength and serviceability of these structures. Current codes and standards are used to guide the practical design of beams, slabs, columns and footings. Prerequisite: CER 310; Every Year, Fall

CER 320L Design of Concrete Structures Lab (1 cr.) Lab to accompany CER 320. Prerequisite: CER 310; Every Year, Fall

CER 340 Soil Mechanics and Foundation Engineering ( 3 cr .) Soil mechanics is the study of soil properties that govern the use of soil as a construction or foundation material. This course is devoted to describing soils, analyzing soil stresses, determining consolidation settlement, designing earth embankments, determining earth pressures and designing foundations based on applicable engineering principles and recognition of the fundamental concepts of soil behavior. During laboratory periods, students examine soil properties and extract necessary parameters for design. Prerequisite: MER 210; Every Year, Spring

## CER 340L Soil Mechanics and Foundation

Engineering Lab (1 cr.) Lab to accompany CER 340. Prerequisite: MER 210; Every Year, Spring

CER 350 Hydrology/Hydraulic Design (3 cr.) This course examines both hydrology, which is the study of occurrence, movement and distribution of rainfall, and hydraulic design, which is the application of fluid mechanics and other science and engineering disciplines in the design of structures and development of water resources. Hydrologic principles are applied to model and analyze the distribution and movement of rainfall in a watershed. Hydraulic principles are applied to analyze and design flow-through systems of reservoirs, channels and culverts. The course makes extensive use of computer simulation models used in engineering practice. Prerequisite: MER 310; Every Year, Spring

CER 350L Hydrology/Hydraulic Design Lab (1 cr.) Lab to accompany CER 350. Every Year, Spring

CER 360 Construction Management ( $\mathbf{3} \mathbf{~ c r}$.) This course focuses on the implementation portion of the design process. The management of construction is covered to include scope of work, rough order-of-magnitude estimating, scheduling, planning, progress reporting, resource constraining and quality control. The roles of the contractor, owner and designer are explained. Prerequisite: MA 142; Every Year, Spring

CER 410 Design of Steel Structures (3 cr.) This course teaches the engineering thought process through the design of steel structures. The course synthesizes the fundamentals of statics, mechanics of materials and structural analysis and applies them to the design of structural members, with emphasis on satisfying realworld needs. Topics include an introduction to the design of structural systems, design of steel tension and compression members, design of beams and beamcolumns, and an introduction to connection design. All design is performed in accordance with codes and specifications used in current engineering practice. A comprehensive design problem requires development of a design methodology, consideration of alternative solutions, and design of an optimal steel structure to meet stated functional requirements. Prerequisite: CER 310; Every Year, Fall

CER 415 Advanced Structural Analysis (3 cr.) This course builds upon the material covered in CER 310 to develop a better understanding of structural behavior. Matrix analysis methods, including an introduction to finite elements, are developed as the basis for modern, computer-based structural analysis. These and other advanced analytical techniques are used to analyze and design trusses, beams and frames. Course work involves extensive use of the computer as an analytical tool. Students use state-of-the-art structural engineering analysis and design software. Prerequisite: CER 310; Every Year, Fall

CER 420 Fundamentals of Environmental Engineering ( 3 cr .) This course introduces students to the field of environmental engineering with an emphasis on basic principles, design, problem solving and sustainable solutions to environmental engineering problems. Prerequisite: CHE 110; Every Year, Spring

CER 430 Transportation Engineering (3 cr.) This course provides cadets with a solid introduction to the principles of transportation engineering with a focus on highway engineering and traffic analysis. The material provides the basic skill set that allows students to solve transportation problems that are likely to appear in professional practice, on the Fundamentals of Engineering exam, and on the Principles and Practice of Engineering exam. Prerequisite: MER 220; Every Year, Fall

## CER 440 Introduction to Power and Energy Systems

( 3 cr .) Students receive an overview of power generation and distribution systems, and learn additional basic-level skills in electrical engineering that enable them to solve straightforward generation and distribution problems. Prerequisite: PHY 122; Every Year, Spring

## CER 445 Advanced Soil Mechanics and Foundation

 Engineering ( 3 cr.) Students extend what they learned in Soil Mechanics and Foundation Engineering, and design advanced foundations in this course. Topics covered include slope stability, field testing, field instrumentation, designing braced excavations, designing piles and drilled shafts, designing flexible walls, designing earth retaining structures, and designing earth structures using geosynthetics. Prerequisite: CER 340; Every Year, FallCER 450 Water and Waste Water Technology ( 3 cr .)
This course looks at engineering solutions to the problems of water processing, water distribution, wastewater collection, wastewater treatment and sludge processing. Prerequisite: CER 420; Every Year, All

CER 455 Advanced Environmental Engineering (3 cr.) Building on what they learned in CER 420, students look more in depth at environmental policies and regulations concerning water and air and their implications on design. Case studies and projects illustrate the practical concerns and issues involved in environmental stewardship and sustainable development. Prerequisite: CER 420; Every Year, Fall

CER 460 Wood and Masonry Design ( $\mathbf{3} \mathbf{~ c r}$.) This course teaches the engineering thought process through the design of wood and masonry structures. The course synthesizes the fundamentals of statics, mechanics of materials, and structural analysis and applies them to the design of structural members, with emphasis on satisfying real-world needs. Students are introduced to the design of structural systems, design of wood tension,
compression, and beam members, as well as design of masonry walls. All design is performed in accordance with codes and specifications used in current engineering practice. A comprehensive design problem requires development of a design methodology, consideration of alternative solutions, and design of an optimal timber and masonry structure to meet stated functional requirements. Prerequisite: CER 310; Every Year, Fall

## CER 498 Design of Civil Engineering Systems (3 cr.)

This semester-long, capstone design experience provides an opportunity for students to apply and synthesize their knowledge of structural engineering, geotechnical engineering, hydrology, hydraulic engineering, construction management and engineering economics. Working in teams, students develop functional requirements for a proposed project, then perform the civil engineering designs for this facility. Execution of the design requires extensive use of computer-based analysis and design tools. The products of this effort include a comprehensive design report including drawings, a model of the facility and a briefing to the client. The integrated design experience is augmented by formal classroom instruction in civil engineering systems design and advanced topics in civil engineering component design. This course constitutes the integrative experience for students majoring in civil engineering. Prerequisites: CER 310, CER 350, CER 420; Every Year, Spring

## Industrial Engineering (IER)

IER 310 Operations Research I ( $\mathbf{3}$ cr.) This course provides a rigorous introduction to the principles of operations research with a focus on Markov chains, linear programming models, the simplex method, and sensitivity analysis. Prerequisite: MA 285; Every Year, Fall

IER 311 Operations Research II (3 cr.) This course provides an introduction to stochastic processes for analysis of industrial engineering problems, emphasizing examples, applications and cases. Prerequisite: SER 310; Every Year, Spring

IER 320 Manufacturing Systems ( 3 cr.) This course provides an introduction to manufacturing systems, including process flow analysis, manufacturing organizations' job shops, assembly lines, group technology and manufacturing inventory philosophies (just-in-time, MRP, OPT). Topics cover current trends in manufacturing, the work environment and work simplification. Prerequisite: MA 271; Every Year, Fall

IER 330 Lean Systems Engineering (3 cr.) This course provides a comprehensive introduction to Lean Systems Engineering. Prerequisite: SER 310; Every Year, Spring

IER 340 Work Analysis and Design (3 cr.) This course analyzes factors that impact workflow, efficiency, safety and engineering economics with an emphasis on engineering considerations of the abilities and limitations of the human aspect in the design of operational systems and components. Prerequisite: SER 310; Every Year, Fall

IER 350 Facilities Layout and Material Handling (3 cr.) This course studies the design of industrial facilities with consideration of work organization and layout. Students examine the basic design of plant systems, including plumbing, electrical, HVAC, illumination, acoustics and waste handling. Topics also include in-depth coverage of material handling system design and equipment choices. Prerequisite: SER 310; Every Year, Spring

IER 385 Decision Analysis (3 cr.) The course presents basic techniques of decision making concentrating on both theoretical and modeling aspects. This course develops innovative industrial engineers who can integrate the art and science of decision making for single and multiple objective environments to support the deci-sion-making phase of the Systems Decision Process (SDP). The focus of the course is modeling problem structure, uncertainty, risk and preference in the context of decision making. Topics include influence diagrams, decision trees, sensitivity analysis, assessing subjective probability, value of information, risk and uncertainty. Students also use value focused thinking to support decisions in multiple objective and resource allocation environments. A series of several computer laboratory exercises provides a key bridge between the mathematical theory and the application of skills to open-ended decision problems. Communication skills are developed with both written reports and oral presentations. Prerequisite: MA 285; Every Year, Spring

IER 387 Deterministic Models ( $\mathbf{3}$ cr.) This course is the first of a two-course sequence that emphasizes modeling and analysis of real-world systems. This course focuses on modeling techniques without consideration of uncertainty or probabilistic effects. The course introduces the deterministic modeling process and many of the classical deterministic models used by systems engineers, operations researchers, and management professionals to identify and analyze alternatives as part of the Systems Decision Process (SDP). Emphasis is placed on creative application of the modeling process to include formulation, solution methods, analysis of results, and interpretation. Topics include deterministic lifecycle cost modeling, linear programming, sensitivity analysis, networks, transportation models, dynamic programming and integer programming. Students spend several lessons in a computer lab environment. Prerequisite: CSC 110; Every Year, Fall

IER 388 Stochastic Models ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i s ~ t h e ~}$ second of a two-course sequence that emphasizes modeling and analysis of real-world systems. Continuing from the modeling process introduced in IER 387, this course introduces the stochastic modeling process and many of the classical stochastic models used by systems engineers, operations researchers and management professionals to capture and describe quantitative effects of uncertainty on decision making as part of the Systems Decision Process (SDP). Topics include stochastic lifecycle cost modeling, conditional probability models, basic inference chains, Markov chains, Poisson processes, birth and death processes, counting processes, queuing systems and simulation. Students spend several lessons in a computer lab environment. Prerequisite: IER 387; Every Year, Spring

## IER 410 Manufacturing Scheduling and Inventory

( 3 cr.) This course covers manufacturing system design, including forecasting, inventory and manufacturing systems control. Prerequisite: IER 311; Every Year, Fall

IER 420 Industrial Control Systems ( $\mathbf{3}$ cr.) This course covers classical control systems through modern control methods based on state variable models, feedback models, controllers and full-state observers. Students gain experience in computer-aided design and analysis using Matlab. Prerequisite: SER 320; Every Year, Spring

IER 440 Service Sector Engineering (3 cr.) This course examines the application of industrial engineering to problems in the global service sector. Service organizations offer new opportunities to innovate, design and manage service operations and processes. Prerequisites: IER 311, IER 340; Every Year, Fall

IER 465 Principles of Industrial Hygiene ( 3 cr.) This course provides an introduction to the foundations of the field of industrial hygiene-a discipline devoted to the anticipation, recognition, measurement, evaluation and control of occupational health hazards. Topics include biological (e.g., microbial agents, allergens); chemical (e.g., solvents, carcinogens, dusts); and physical (e.g., radiation, temperature) hazards. Overview of control of health hazards, such as personal protective equipment, administrative controls, and engineering controls. Students also participate in lecture and case-study activities, and are given ample opportunity for hands-on use of monitoring equipment, protective equipment and controls testing devices. Prerequisite: IER 340; Every Year, Spring

## IER 475 Global Issues in Industrial Management (3 cr.)

 Students explore industrial management topics of current interest from a global perspective. Topics include current domestic and international challenges resulting from a global marketplace and the proliferation of infor-mation and technology. Industrial management and organizational performance, total quality management, business process re-engineering, leadership, organizational change, the role of communication and information, and ethics also are covered. Prerequisite: IER 320; Every Year, Fall

IER 484 System Dynamics Simulation (3 cr.) The techniques taught in this course are a significant part of the Systems Decision Process (SDP) as they introduce the concept of dynamic systems thinking and analysis.
Large-scale systems are dynamic, involve complex cause-and-effect relationships that form feedback loops between the variables of interest, and produce outcomes that are not always intuitive. Students use the properties of dynamic systems and analytical techniques to design continuous models of complex systems or processes, implement these models, and perform an analysis of the results. Topics include applications of System Dynamics, client/modeler relationships, problem articulation, functional modeling through causal loop diagrams and stock and flow diagrams, modeling and simulation in a PCbased continuous event simulation package, policy design, policy testing, and policy implementation. Students present their design results in both written reports and oral presentations. The course also addresses ethical implications in the development and application of dynamic models as well as interactions with decision makers. Students spend several lessons in a computer lab environment. Prerequisite: IER 385; Every Year, Spring

IER 489 Advanced Independent Study in IE ( $\mathbf{3} \mathbf{~ c r}$ ) This is a tutorial course or an individual project in which the student pursues advanced study in systems engineering or engineering management. The scope of the course is tailored to the desires of the student in consultation with a faculty adviser. Communication skills are developed with both written reports and oral presentations. Approval of faculty member required. Every Year, Fall and Spring

## IER 491 Research Project in Industrial Engineering

 (3 cr.) This course integrates the concepts and techniques learned in previous industrial engineering courses to solve a current problem of interest to industry. Subject to approval from program directors, students select a project topic that is of interest to them, or one that is compatible with ongoing research. Students coordinate with a faculty mentor who has an interest and background in the research area and who assists in scoping the project and directing the research effort. Students may work individually or in small teams, depending on the nature of the research. The course culminates with a student presentation and a written report. Approval of faculty member required. Every Year, Fall and SpringIER 498 Senior Design Project I ( $\mathbf{3} \mathbf{~ c r}$.) This is part one of a two-semester, 6 -credit capstone design experience for industrial engineering students involving analysis and synthesis of unstructured problems in practical settings. Students work in teams to formulate issues, propose solutions and communicate results in formal written and oral presentations. Prerequisite: IER 311; Every Year, Fall

## Mechanical Engineering (MER)

## MER 210 Fundamentals of Engineering Mechanics and Design ( $\mathbf{3} \mathbf{c r}$.) This course provides an introduction

 to the engineering design process and the method of design. Principles of equilibrium are used to analyze forces on statically determinate rigid bodies and structures, including trusses and frames. Students examine the behavior of deformable bodies under axial, flexural and torsional loading. The concepts of stress, strain and material properties are introduced and are used to relate external forces applied to a body to the resulting internal forces and deformations so that performance can be evaluated. Practical applications involving the design and adequacy of mechanical and structural elements under various loading conditions are emphasized. Every Year, SpringMER 220 Mechanics of Materials (3 cr.) This course studies the behavior of a variety of materials under normal, shear, torsional, bending and combined loads. The concepts of stress, strain, creep, corrosion, fatigue and material properties are explored. The course examines observed behavior in light of the relationships between the microscopic structure and macroscopic properties of materials used in engineering applications. The loading, geometry, functional environment and material properties of machine or structural parts are used to relate the forces applied to a body to the resulting internal forces and deformations so that performance can be evaluated. Practical applications involving the design and adequacy of mechanical and structural elements under various loading and environmental conditions are emphasized. Prerequisite: MER 210; Every Year, Fall

MER 220L Mechanics of Materials Lab (1 cr.) Lab to accompany MER 220. Every Year, Fall

MER 221 Dynamics ( $\mathbf{3} \mathbf{~ c r}$.) This course examines the motion of particles, systems of particles, and rigid bodies under the influence of forces. It focuses on the use of Newton's Second Law, in three major, progressive blocks of instruction from scalar, then vector treatments of rectilinear and curvilinear motion of single particles; through vector motion of systems of particles; to general three-dimensional motion of rigid bodies. The course also provides brief introductions to energy methods: work-energy and impulse-momentum. It provides stu-
dents with a solid understanding of the relationship between force and acceleration in a dynamic environment. Students apply the laws of physics to analyze problems. Prerequisites: MER 210, MER 220; Every Year, Fall

MER 230 Engineering Materials ( $\mathbf{3} \mathbf{c r}$.) This course explores the relationship between the microscopic structure and macroscopic properties of materials used in engineering applications. The origin of mechanical and physical properties is studied. Emphasis is placed on an understanding of the fundamental aspects of atomic and microstructural concepts for proper materials selection and enhancement of engineering properties. Materials studied are metals, ceramics, polymers, composites, nano-sized/structured materials, biomaterials, smart materials and semi- and super-conductors. Laboratory exercises are incorporated throughout the course to provide practical experience in making decisions concerning material composition and processing to optimize engineering properties. Experiences from the field are detailed to demonstrate application of concepts. Prerequisite: MER 220; Every Year, Spring

MER 230L Engineering Materials Lab (1 cr.) Lab to accompany MER 230. Every Year, Spring

MER 240 Mechanical Engineering Design (3 cr.) This course introduces students to the in-depth process of mechanical design, prototyping and production of designs. Emphasis is placed on the creative process, developing specifications, taking human factors into account, and concepts for continuous product improvement. Prerequisite: MER 210; Every Year, Fall

MER 250 Computer Aided Design (3 cr.) This course explores the use of computer methods as an aid to solving engineering problems. Computer techniques are studied in a variety of engineering contexts. Topics include 3D solid modeling, engineering analysis, engineering computer programming and graphical presentation of information. Students learn to apply a variety of engineering-related programs or routines. Students write, document and use programs of their own in design scenarios. Emphasis is placed on use of the computer as a tool in the engineering design process. Prerequisite: MA 241; Every Year, Spring

## MER 270 Managing Engineering Technology (3 cr.)

This course provides a foundation for engineers to understand the techniques used to manage the complexities of technical equipment used in manufacturing. Every Year, Fall

MER 310 Thermal-Fluid Systems I (3 cr.) This course is an integrated study of fundamental topics in thermodynamics and fluid mechanics. It introduces conservation principles for mass, energy and linear momentum as
well as the second law of thermodynamics. Principles are applied to incompressible flow in pipes and turbomachinery, external flows, power generation systems, refrigeration cycles and total air-conditioning focusing on the control volume approach. Laboratory exercises are integrated into classroom work. This course includes completion of a comprehensive, out-of-class design problem, which provides the opportunity for students to apply engineering science and the engineering design process to a hands-on project. Prerequisites: CHE 110, PHY 121; Every Year, Fall

MER 320 Thermal-Fluid Systems II (3 cr.) This course continues the integrated study of fundamental topics in thermodynamics and fluid mechanics. It applies conservation principles for mass, energy and linear momentum as well as the second law of thermodynamics. Principles are applied to an automotive system to examine engine performance (Otto and Diesel cycles) and to high performance aircraft to examine the Brayton cycle, compressible flow, external flow, lift and drag. Laboratory exercises are integrated into classroom work. Design problems provide the opportunity for students to apply engineering science to the design of thermal-fluid systems. Prerequisite: MER 310; Every Year, Spring

MER 330 Introduction to Circuits ( $\mathbf{3} \mathbf{c r}$.) This course provides an introduction to circuits, controls and mechatronics. The topic of electrical engineering is also introduced to prepare students for the Fundamentals of Engineering exam as a part of professional licensure. Students learn the language, tools and problem-solving techniques used in electrical circuits. Prerequisite:
PHY 122; Every Year, Spring
MER 330L Circuits Lab (1 cr.) Lab to accompany MER 330. Prerequisites: PHY 122; Every Year, Spring

## MER 340 Manufacturing/Machine Component

Design (3 cr.) This course is an introduction to mechanical manufacturing machines and machine component design. The first portion of the class is devoted to safe, hands-on experience with manufacturing machines and equipment. Students have an opportunity to work on civil and mechanical manufacturing machines that are common in machine, woodworking and sheet metal shops such as a mill, lathe, grinder, belt sander, drill press and bandsaw. The course progresses to fundamental engineering science applied to machine components. Topics include load, stress and strain analyses, impact, fatigue and surface damage. Finally, students study machine component design, including mechanical components such as fasteners, springs, bearings, gears and shafts. Welding techniques and welding equipment are introduced. The course culminates in a team-oriented process, design and manufacture of a mechanical engineering product. Prerequisites: MER 210, MER 220; Every Year, Spring

MER 340L Manufacturing/Machine Component Design Lab (1 cr.) Lab to accompany MER 340. Every Year, Spring

MER 350 Mechanical Engineering Design (3 cr.) This course introduces mechanical engineering design as an iterative decision-making process. Students are introduced to engineering economics and ethics. One engineering design problem reinforces the design process instruction and culminates in a student competition. Students begin an integrative capstone design experience that applies the mechanical engineering design process to a real-world engineering problem addressing social, political, economic and technical issues. Students begin capstone assignments early in the course and continue their projects with MER 498. Prerequisite: MER 340; Every Year, Fall

MER 350L Heat Transfer Lab (1 cr.) Lab to accompany MER 350. Prerequisite: MER 310; Every Year, Fall

MER 360 Heat Transfer (3 cr.) The three modes of heat transfer-conduction, convection and radiation-are studied in detail, and applications are made to various engineering systems. The principles of conduction and convection are used to study the mechanisms of heat transfer during boiling, condensation and the design of heat exchangers. Prerequisites: MER 310; Every Year, Fall

MER 360L Heat Transfer Lab (1 cr.) Lab to accompany MER 360. Prerequisite: MER 310; Every Year, Fall

MER 387 Introduction to Applied Aerodynamics (3 cr.) The fundamental laws of fluid mechanics are used to develop the characteristic forces and moments generated by the flow about aerodynamic bodies. Lift, drag and aerodynamic moments are studied for airfoils (2D) and finite wings (3D) in the subsonic and supersonic flow regimes. Aircraft performance and design parameters are developed in both the classroom and laboratory sessions. The laboratory sessions include low-speed wind tunnel testing. Prerequisites: MER 221, MER 310; Every Year, Spring

MER 388 Helicopter Aeronautics (3 cr.) Students analyze the aerodynamics of helicopter flight, looking at hover, translating and partial power flight. Theory and experimental results are used to predict aircraft performance. The course analyzes the dynamic response of the rotor system and the performance aspects of the vehicle as a whole. This is followed by a design workshop, during which students complete the initial sizing of a helicopter to meet specific mission requirements. The course includes a laboratory examining rotor power and thrust utilizing a whirl stand apparatus, and one field trip to a commercial helicopter company. Prerequisites: MER 210, MER 250, MER 310; Every Year, Spring

MER 470 Dynamic Modeling and Control (3 cr.) This course covers dynamic modeling and control of linear systems. The course provides an overview of classical control theory as the foundation for control applications in electrical, mechanical and aeronautical systems. Topics include system modeling using Laplace transform, frequency domain and state variable methods. Mathematical models are developed for electrical, mechanical, aeronautical, chemical and other physical control systems. Control systems analysis and design techniques are studied within the context of how each system is physically controlled in practice. Laboratory exercises include feedback design and system identification. Computer design exercises include dynamic modeling and control of various engineering systems. Prerequisite: MER 330; Every Year, Fall

MER 472 Energy Conversion Systems ( $\mathbf{3}$ cr.) This course looks at the historical evolution of both classical and state-of-the-art energy conversion technology. Students conduct advanced analysis of energy conversion hardware, air conditioning and refrigeration as well as fossil fuel combustion processes using concepts of energy. Major methods of direct energy conversion are covered, including thermoelectricity, photovoltaics, thermionics, magnetohydrodynamics, and fuel cells. The current state of national and world energy is presented, and alternatives including renewable energy and a hydrogen economy are explored with reference to economic, political, environmental and technological factors. Prerequisite: MER 330; Every Year, Spring

MER 475 Mechatronics ( $\mathbf{3 c r . \text { ) This course provides a }}$ comprehensive introduction to the field of mechatronics. Mechatronics is the crossroads in engineering where mechanical engineering, electrical engineering, computer science and controls engineering meet to create new and exciting real-world systems. Knowledge of mechanical and electrical components, controls theory and design are integrated to solve actual physical design applications. Prerequisite: MER 470; Every Year, Fall

MER 475L Mechatronics Lab (1 cr.) Lab to accompany MER 475. Every Year, Fall

MER 481 Aircraft Performance/Static Stability (3 cr.) The course applies the principles developed in applied aerodynamics to develop the equations of motion for a rigid aircraft in steady state level flight, maneuvering flight, and during takeoff and landing. These equations are analyzed to determine such performance characteristics as maximum range, endurance, turning rate, climb rate, etc. Piston-prop, turbo-prop and jet aircraft are considered. The equations of motion are then analyzed to develop static stability criteria and investigate steady state control characteristics. Prerequisites: MER 330, MER 387; Every Year, Fall

MER 486 Vibration Engineering (3 cr.) In this course, students develop a foundation in the analysis and design of free and forced single and multidegree of freedom systems. Applications include modeling, damping, resonance, force transmissibility, vibration absorbers, matrix formulation and modal analysis. Emphasis is placed on vibrations examples from several engineering fields. Out-of-class design problems provide students with the opportunity to apply principles taught in the classroom to realistic problems encountered by practicing engineers. In-class demonstrations supplement the theory development. Prerequisite: MER 221; Every Year, Spring

MER 489 Advanced Study in Mechanical Engineering ( 3 cr ) Students pursue advanced study of a topic in mechanical engineering on an individual or small-group basis, independent of a formal classroom setting. Similar to graduate level research, the scope of the selected project is tailored to the interests of the student, based on resources and in consultation with a faculty adviser. To develop research skills, the student is integral in all phases of project: defining objectives, studying fundamentals and background material, outlining the approach, conducting analysis and communicating results. Permission of the instructor required. Every Year, Fall and Spring

MER 491 Mechanical Power Plants (3 cr.) Students engage in the analysis, testing and evaluation of internal combustion engines and their subsystems with a view toward understanding the underlying principles that affect their design. Spark ignition and compression ignition engine systems are studied in detail with laboratory opportunities to relate theory to practice. A series of component design problems is interspersed throughout the course. Prerequisites: MER 310, MER 320; Every Year, Spring

## MER 492 Power Trains and Vehicle Dynamics (3 cr.)

This is an introductory course in ground vehicle theory with emphasis on analysis, testing and evaluation of automotive power trains and dynamic systems to understand the underlying principles affecting vehicle design. Clutches, transmissions (manual and automatic), differentials, wheels and tires, as well as braking, steering and suspension systems are studied in detail to include their effect on vehicular or other system performance. High speed, tracked vehicle application of the above systems is covered. Theory is verified with hands-on experience in the laboratory. Component design problems are interspersed throughout the course. Prerequisites: MER 221, MER 320; Every Year, Fall

MER 498 ME Capstone Design (3 cr.) This course provides experience in the integration of math, science and engineering principles into a comprehensive engineering design project. Open-ended, client-based design problems emphasize a multidisciplinary approach to total
system design providing multiple paths to a number of feasible and acceptable solutions that meet the stated performance requirements. Design teams are required to develop product specifications, generate alternatives, make practical engineering approximations, perform appropriate analysis to support the technical feasibility of the design, and make decisions leading to an optimal system design. System integration, human factors engineering, computer-aided design, maintainability and fabrication techniques are addressed. This course provides an integrative experience in support of the overarching academic program goal, and is often interdisciplinary in nature. Prerequisite: MER 350; Every Year, Spring

## Computer Software Engineering (SER)

SER 310 Software Engineering Approaches to Human Computer Interaction (3 cr.) This course covers design and interfacing of computer input and output systems including standard and newer input devices. Prerequisite: CSC 225; Every Year, Fall

SER 320 Software Design and Architecture (3 cr.) Students explore the various elements of software design and architecture, with an emphasis on software design methodologies, architectural styles, design guidelines and design tools. Prerequisite: CSC 225; Every Year, Spring

SER 330 Software Quality Testing ( $\mathbf{3} \mathbf{c r}$.) This course presents the theory and practice of software testing, including such topics as syntax testing, mutation testing, tools for software testing, testing specifications, blackbox and white-box testing, code inspections, metrics, usability testing, testing documentation, website testing, security testing, beta testing, quality assurance and software safety. Prerequisite: CSC 225; Every Year, Fall

SER 340 Software Requirements Analysis (3 cr.) This course presents theory and practice for how to ensure software quality. Topics covered include quality management frameworks, software metrics, commercial and government standards, and personnel and training requirements for software engineers. Prerequisite:
CSC 225; Every Year, Fall
SER 416 Autonomous Mobile Robotics (4 cr.) This course covers the theory and application of concepts relevant to autonomous mobile robotics. Topics include interfacing sensors to a microcontroller board, programming mobile robot, robot configurations and architectures. Students learn to assemble and understand microrobot systems, program a microcontroller board in C, and understand basic analog and digital sensor interfacing. Prerequisite: CSC 110; Every Year, Fall

SER 435 Introduction to Object Oriented Design Using Graphical User Interfaces (4 cr.) This course covers the principles of object-oriented design, with emphasis on use of these principles in the design of graphical interfaces. Students compare and contrast two major object-oriented languages and their corresponding GUI class libraries. Topics include language-independent object-oriented design methods, and application of these methods in the construction of a GUI-based project.
Prerequisite: CSC 225; Every Year, Spring
SER 476 Real-Time 3D Computer Graphics Software ( 4 cr .) This course examines basic and advanced algorithms for real-time, interactive, 3D graphics software. Topics include modeling (polygon mesh, height field, scene graph), real-time rendering and shading (visibility processing, LOD, texture and light maps), collision detection (bounding volumes, complexity management), interactive controls, multiplayer game technology, and game engine architecture. Prerequisites: MA 142, CSC 210; Every Year, Spring

SER 498 Senior Design Project I (3 cr.) This is part one of a two-semester, 6 -credit capstone design experience for software engineering students. It involves analysis and synthesis of unstructured problems in practical settings. Students work in teams to formulate issues, propose solutions and communicate results in formal written and oral presentations. Prerequisite: SER 340; Every Year, Fall

## English (EN)

EN 101 (UC) Elements of Composition I (3 cr.) Students develop techniques for effective writing by studying the writing process and the skills necessary for producing purposeful, unified and coherent short essays: rhetoric, effective diction, revising techniques, critical reading, critical thinking, awareness of audience, and introduction to research and documentation. Readings include expository prose and short fiction and provide a context for vocabulary and comprehension skills as well as for written response. Peer tutoring is available in the Learning Center. Students meet for three hours per week for instruction. Grade of C - or better required to pass EN 101. Full-time students are expected to have completed EN 101 and EN 102 by the end of three semesters. Part-time students are expected to have met these requirements by the time they have completed 30 credits. Students may not withdraw from EN 101 or EN 101 Intensive. The first time a student fails to complete EN 101 or EN 101 Intensive successfully (a grade of C- or better), a grade of U is issued. Each additional unsuccessful attempt at EN 101 or EN 101 Intensive results in a grade of F. Every Year, All

EN 101 (UC) Elements of Composition I Intensive
( 3 cr.) Students develop techniques for effective writing by studying the writing process and the skills necessary for producing purposeful, unified and coherent short essays: rhetoric, effective diction, revising techniques, critical reading, critical thinking, awareness of audience, and introduction to research and documentation. Readings include expository prose and short fiction and provide a context for vocabulary and comprehension skills as well as for written response. Peer tutoring is available in the Learning Center. Upon successful completion of EN 101 Intensive, students earn 3 credits, although they take five hours of instruction per week. A grade of C - or better is required to pass EN 101 Intensive. Full-time students are expected to have completed EN 101 and EN 102 by the end of three semesters. Part-time students are expected to have met these requirements by the time they have completed 30 credits. Students may not withdraw from EN 101 or EN 101 Intensive. The first time a student fails to complete EN 101 or EN 101 Intensive successfully (a grade of C- or better), a grade of U is issued. Each additional unsuccessful attempt at EN 101 or EN 101 Intensive results in a grade of F . Every Year, All

EN 102 (UC) Elements of Composition II (3 cr.) This course is a continuation of EN 101. The second semester reviews the student's grasp of short essay structure and of effective sentence structure, but emphasizes argument, persuasion and research writing. Essays are longer and more complex than in EN 101, and some attention is paid to writing across the curriculum. The readings, which include expository essays, plus several longer works of fiction, drama, or a selection of poems, serve to unify the course content. Peer tutoring is available in the Learning Center. Prerequisite: EN 101; Every Year, All

EN 150 Advanced Revision and Editing (1 cr.) This five-week course teaches the principles of revising and editing an original argumentative essay on a controversial issue in contemporary American society with an emphasis on a common ground approach to weighing evidence from a range of ideological arenas. Weekly drafts undergo intensive instruction on informational flow, topic strings, transitions, and introductory and conclusive structures. (Required of all minors in English.) Prerequisites: EN 101, EN 102; Every Year, All

EN 200 Special Topics in Literature ( 3 cr .) Students are introduced to readings in literature dealing with a single theme or specific problem, e.g., mystery/detective fiction, masterpieces of Jewish literature, comedy, etc. The course may be repeated for credit when topic changes. Specific titles are announced from time to time. Prerequisite: EN 101 or EN 102H; Every Year, All

EN 201 Creative Writing ( $\mathbf{3} \mathbf{c r}$.) This advanced composition course blends seminar and workshop approaches to the reading, analysis, discussion and writing of imaginative literature. Students compose and revise original works of poetry, short stories or drama. (The choice of genre is at the discretion of the instructor.) This course counts toward both the English major and minor. Participants must submit a portfolio of both critical and creative works to the instructor before registration. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 202 Introduction to Creative Nonfiction (3 cr.) Students read a variety of short works with an eye toward understanding the stylistic techniques employed by contemporary writers of creative nonfiction. Students are then asked to employ a number of stylistic techniques in their own short works of creative nonfiction. The class emphasizes reading like a writer, writing as a process, the writing workshop, and careful revision and editing. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 204 Critical Theory and Practice (3 cr.) This course introduces students to how literature is studied in the discipline of English. Elementary concepts of literary and critical theory are discussed with reference to both literature and scholarly criticism. Attention is paid to writing and researching in the discipline in an effort to prepare students for upper-division courses and the Senior Seminar. Course should be taken in sophomore or junior year. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 208 (UC) Greek Tragedy (3 cr.) This comprehensive survey of Greek tragedy pays special attention to tragic theory and to the evolution of classical drama from its birth in the cult of Dionysus to its culmination in fifthcentury B.C. Athens. The extant plays of Aeschylus and Sophocles and selected plays by Euripides are examined with special emphasis on form. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 208H (UC) Honors Greek Tragedy (3 cr.) This comprehensive survey of Greek tragedy pays special attention to tragic theory and to the evolution of classical drama from its birth in the cult of Dionysus to its culmination in fifth-century B.C. Athens. The extant plays of Aeschylus and Sophocles and selected plays by Euripides are examined with special emphasis on form. Prerequisite: EN 101 or EN 102H

EN 210 (UC) The Art of Poetry (3 cr.) Students undertake close reading and discussion of poetry not limited by historical period. Attention is paid to technique and repeated themes in an attempt to experience and understand poetry. Prerequisite: EN 101 or EN 102H; Every Other Year, Spring

EN 212 (UC) The Personal Essay (3 cr.) In this advanced writing course, students read, write about and create various strains of the personal essay while sampling British and American permutations of the letter, the diary and the journal-from the 18th to the late 20th century. The Reader Response Journal is the central mode for preparing reading and discussion of assigned canonical essayists, and these journals are then revised for the writing of several brief academic and personal essays. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 213 (UC) The Nature Essay (3 cr.) This advanced writing course focuses on the history and evolution of human thinking about nature and our relationship to it. Looking first at Biblical, Greek, Roman and Medieval sources, students concentrate on American writers, beginning with Lewis and Clark and ending with a longer reading by a contemporary naturalist writer (e.g., Annie Dillard, Norman Maclean, Terry Tempest Williams, Barry Lopez). In-class journals and formal writing assignments are used to advance discussion and emphasize persuasion and argumentation. Prerequisite:
EN 101 or EN 102H; Every Year, Fall
EN 214 (UC) The History Essay (3 cr.) This genrebased course in writing the historical essay is not a history course. It is a writing course that concentrates on the technique of the essay and introduces the principles of writing historical literature. Students explore history as a problem-solving tool, wherein the lessons from studying the past can be useful in understanding the present. The course examines newer (and more controversial) areas of cultural and social history. Prerequisites: EN 101 or EN 102H; Every Year, Spring

EN 214H (UC) Honors The History Essay (3 cr.) This genre-based course in writing the historical essay is not a history course. It is a writing course that concentrates on the technique of the essay and introduces the principles of writing historical literature. Students explore history as a problem-solving tool, wherein the lessons from studying the past can be useful in understanding the present. The course examines newer (and more controversial) areas of cultural and social history. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 215 (UC) The Travel Essay (3 cr.) This genre-based advanced writing course provides a historical overview of nonfiction, travel writing and its emergence as an area of scholarly interest. It explores the ways in which travel writers create narrative personae, construct essays to persuade readers to their perspective, and help to compose the identities of the peoples and cultures about whom they write. Emphasis is on the sustained examination and practice of student writing. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 220 (UC) The Short Story as a Genre (3 cr.) This course covers the development of the short story from the 19th century to the present with intensive study of masterpieces of internationally recognized masters: Hawthorne, Poe, Melville, Wharton, James, Tolstoy, Joyce, Lawrence, Hemingway, Faulkner, Erdrich and others. Prerequisite: EN 101 or EN 102H; Every Year, All

## EN 235 (UC) Literature by Women (WS 235) (3 cr.)

Virginia Woolf wrote that, for most of history, Anonymous was a woman. The last two centuries have energetically recovered the writings of women and shifted them into equal stature with literature written by men. With the question of what it means to extract a canon of literature defined by gender as its center, this course allows students to consider the ways in which women have contributed a language and form to the literary tradition. In particular, the course explores the process by which this literature, often written from the margins of experience, has shaped how we read today. Varied female authors are discussed, including Woolf, the Brontës, Emily Dickinson, Zora Neal Hurston, Sylvia Plath, Toni Morrison, Sandra Cisneros, Jamaica Kincaid, Leila Abouzeid, and Maxine Hong Kingston, among others. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 236 (UC) The Idea of the West in the American Imagination (3 cr.) This course examines the influence of the frontier and the westward movement on American literature, revealed in such writers as Cooper, Whitman, Mark Twain, Eleanor Stewart, Willa Cather, Faulkner, A.B. Guthrie, Larry McMurtry, Louise Erdrich, Ed Abbey, Sam Shepard, Rick Bass and Linda Hogan. The nature of myth and reality and of the American attitude as affected by the opportunity to mold a fresh society is explored. Prerequisite: EN 101 or EN 102H; Every Other Year, Spring

EN 240 (UC) Survey of English Literature I (3 cr.) The development of English literature as reflected in the works of major authors from Anglo-Saxon times through the 18th century is explored. Students gain an understanding and appreciation of literature through the study of the cultural background, the literary work itself, and the life of the author. Prerequisite: EN 101 or EN 102H; Every Year, Fall

## EN 250 (UC) Survey of English Literature II (3 cr.)

This course explores the development of English literature as reflected in the works of major authors from the Romantic to the modern age. Students gain an understanding and appreciation of this literature through the study of the cultural milieu, the literary work itself, and the life of the author. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 250 H (UC) Survey of English Literature II (3 cr.) This course explores the development of English literature as reflected in the works of major authors from the Romantic to the modern age. Students gain an understanding and appreciation of this literature through the study of the cultural milieu, the literary work itself, and the life of the author. Prerequisite: EN 101 or EN 102H; Every Year, Spring

## EN 260 (UC) Survey of American Literature I (3 cr.)

 This course covers the development of American literature as reflected in the works of major authors and works from Colonial times through the Civil War. Students gain an understanding and appreciation of this literature through study of the cultural background, the literary work itself, and the life of the author. Major authors include Bradstreet, Emerson, Thoreau, Whitman, Hawthorne, Melville and Davis. Prerequisite: EN 101 or EN 102H; Every Year, Fall
## EN 265 (UC) Survey of African-American Literature

 ( 3 cr .) This survey of African-American literature from Colonial times to the present concentrates on 20th-century literature. Emphasis is placed upon close reading of selected texts in light of the changing socio-cultural conditions faced by African Americans. Prerequisite: EN 101 or EN 102H; Every Other Year, Spring
## EN 270 (UC) Survey of American Literature II (3 cr.)

 This course covers the development of American literature as reflected in the works of major authors from the Civil War to the present. Students gain an understanding and appreciation of literature through study of the cultural background, the literary work itself, and the life of the author. Major authors include Emily Dickinson, Fitzgerald, Hemingway, Faulkner, T.S. Eliot, Philip Roth and Marilyn Robinson. Prerequisite: EN 101 or EN 102H; Every Year, SpringEN 275 (UC) Literature of the Modern South (3 cr.) The fiction, poetry and drama written by Southern authors from 1920 to the present are studied in this course. Some attention is given to earlier Southern writing, but everything is discussed within the historical, cultural and social context of the South. Major emphasis is on Faulkner, Warren, Williams, O'Connor, Porter, Welty and Dickey. Prerequisite: EN 101 or EN 102H; Every Year, Spring

## EN 280 (UC) The European Tradition in Literature I

 ( $\mathbf{3}$ cr.) This survey course presents selected European masterpieces, both written in English and in translation, including representative selections from Homer to 1700. Emphasis is on literary and philosophic values with attention to methods of literary analysis as applicable to works by Virgil, Dante, Cervantes and others. The course presents historical backgrounds and study in thegeneric traditions of literature. Prerequisite: EN 101 or EN 102H; Every Year, Fall

EN 281 (UC) The European Tradition in Literature II ( 3 cr .) This survey course presents selected European masterpieces, both written in English and in translation, including representative works from 1700 to the present. Emphasis is on literary and philosophic values with attention to methods of literary analysis as applicable to the works of Moliere, Voltaire, Rousseau, Goethe, Pushkin, Flaubert, Dostoyevsky, Chekhov, Mann and Kafka. The course combines historical backgrounds and study in the generic traditions of literature. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 283 (UC) The American Dream: Paradise or Failure ( 3 cr .) The American Dream is examined through literary works. Differing views of the American character are analyzed through significant writers, from the Puritans to the present, with the purpose of gaining a better understanding of the American experience. Major authors include Emerson, Hawthorne, Fitzgerald, Faulkner and others. Prerequisite: EN 101 or EN 102H; Every Other Year, Fall

EN 300 Special Topics in Literature ( 3 cr.) This course explores readings in literature dealing with a single author, theme, or specific problem. The course may be repeated for credit when topic changes. Specific titles are announced from time to time. Prerequisite: one course from EN level 200; Every Other Year, Spring

## EN 301 Advanced Fiction-Writing Workshop (3 cr.)

 This advanced fiction-writing course uses a workshop approach to help students understand and experience the process of drafting, revising and editing short stories, as well as the importance of reading and critiquing the work of their peers. Students gain a sense of the landscape of contemporary short fiction by reading from the "Best American Short Stories" anthology and by giving formal presentations on print and web-based literary journals and magazines. Each student prepares at least one packet for submission to an appropriate journal or magazine, and at the semester's end, students present selections from their work in a public venue of their own choosing (e.g., public reading, website, blog, etc.). The final portfolio represents the breadth of the students' work, including multiple drafts of stories, workshop comments, reading responses, and a writer's journal. Prerequisite: EN 201; Every Year, SpringEN 302 Advanced Creative Nonfiction ( 3 cr.) This advanced writing course focuses on the reading, analyzing and writing of creative nonfiction. Students read essay and book-length works of creative nonfiction with an emphasis on understanding authorial presence, issues of audience, questions of truth and memory and artistic techniques. Students are asked to employ what they learn from studying masterworks of creative nonfiction
to their own longer works of creative nonfiction. Prerequisite: EN 201 or EN 202; Every Year, Spring

EN 304 Critical Approaches to Literature (3 cr.) This course presents a study of the major critical theories of literature: formalism, deconstruction, psychoanalysis, Marxism, feminism, new historicism, and cultural studies. Readings from primary theoretical texts pay special attention to understanding and researching different modes of criticism currently used, and comprehending how these modes aid in interpreting a work of literature. This course is recommended in the junior year. Prerequisites: two courses from EN level 200 300; Every Year, Fall

## EN 305 Composition of Argument Across the Disci-

 plines ( 3 cr .) This course assumes some familiarity with the abiding features of argumentation. Between reading a variety of texts about how various disciplines construct argumentative discourse, students keep journals and write a series of short essays that build toward a longer research essay. Students also listen to invited QU professors from across the disciplines regarding how arguments are made and are expected to make oral presentations in relation to their chosen area of research. Prerequisite: one course from EN level 200EN 308 Composing America ( $\mathbf{3}$ cr.) This research-based, advanced composition and period course is a hybrid that crosses the divide between the study of literature and the study of rhetoric. Students investigate the intersection between literature and literacy/composition practices in the U.S. between World War II and the Vietnam War (1939-72). Participants consider how the U.S. has been composed through the acts of reading and writing by studying a variety of texts (poetry, drama, novels, travel, anthropology, folktales, music, theory, film and art). Prerequisites: EN 101, EN 102; one course from EN level 200; Every Other Year, Fall

EN 311 Epic Poetry (3 cr.) This lecture/discussion course examines the tradition of epic poetry in the Western world. Poems discussed include, or are selected from: "The Epic of Gilgamesh," Homer's "Iliad" and "Odyssey," Virgil's "Aeneid," "Beowulf," Dante's "Inferno" and Milton's "Paradise Lost." The distinguishing qualities of the epic, the historical, cultural and social backgrounds also are examined. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 312 Autobiography ( $\mathbf{3} \mathbf{c r}$ ) The literary form and history of autobiography are considered, from St. Augustine's "Confessions" to Rousseau, Wordsworth, and selected contemporary authors (e.g., Russell Baker, Claude Brown, Maxine Hong Kingston, etc.). Attention is paid to cultural and psychological changes in self-narrative. Prerequisite: one course from EN level 200; Every Other Year, Spring

## EN 313 The Bible: Beginnings and Endings (3 cr.)

Selections from the Old and New Testaments are studied from a cultural and literary perspective. Close examination of passages in class with emphasis on responses from the class. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 320 Studies in the Novel ( $\mathbf{3}$ cr.) Students explore the development of the novel from its beginning to the present through discussion of the theories of prose narration. Special attention is given to characteristics of the genre.
The course may be repeated for credit when topic changes (e.g., American novel, English novel, Continental novel). Prerequisite: one course from EN level 200; Every Year, All

EN 321 The Russian Novel ( 3 cr.) The Russian Novel is framed as a survey course, from the publication of Alexander Pushkin's "Eugene Onegin" in 1823 as a serial novel, to material drawn from the Soviet period, especially from the work of Alexander Solzhenitsyn, Mikhail Sholokov, Abram Tertz (Andrey Sinyavsky), Anna Akhmatova and Maria Tsvetaeva. Major works by Lermontov, Turgenev, Dostoevsky, Tolstoy and Chekhov also are included in the course material. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 322 Studies in Modern and Contemporary Literature ( $\mathbf{3}$ cr.) This course focuses on readings in imaginative literature of the 20th and 21st centuries. The course may emphasize English, American or world literature. As with EN 320, students may repeat this course when the topic changes. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 324 The Gothic Novel (3 cr.) The Gothic Novel offers a historical survey of the Gothic genre, from Horace Walpole's 1764 "The Castle of Otranto" to more contemporary exemplars of the Gothic genre in North America (Anne Rice, Suzy McGee-Charnas, Joyce Carol Oates) and Europe (Patrick Susskind, Patrick $\mathrm{McGrath})$. The course considers the Gothic genre's development in historical, social and cultural contexts, as well as the structural and epistemological changes that have emerged since the late 18th-early 19th centuries. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 325 History of the English Language (3 cr.) This course introduces students to the origins and development of the English language and to its social, cultural and historical contexts. It is designed for students in the English major and minor, and required of all English majors in the MAT program. Prerequisite: one course from EN level 200; Every Year, Spring

EN 326 Modern Irish Drama ( 3 cr.) This course surveys the development of modern Irish dramas, from W.B. Yeats and the writers of the Gaelic Revival (1884-1916) to more current dramatists such as Tom Murphy and Brian Friel. The material not only covers the powerful body of work produced by Yeats, Synge and Lady Gregory (along with its influence on European and American drama) but also ranges over the work of G.B. Shaw, Brendan Behan, Sean O'Casey and Martin McDonagh. Students also consider modern works of the Irish stage, especially by women (e.g., Elizabeth Kuti) and other voices. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 335 Images of Women in Psychology and Literature (PS/WS 335) ( 3 cr .) The ways in which psychology and literature depict the female experience are considered. Using readings in both traditional and feminist, psychological, and literary theory, the course analyzes literary texts by and about women. Topics include: gender and genre, female identity formation, the minority experience. Prerequisites: PS 101; one course from EN level 200; Every Other Year, Fall

## EN 338 American Literature by Women of Color

(WS 338) (3 cr.) This study of the diverse literary traditions, themes and narrative strategies employed by nontraditional American women writers examines the ways race, ethnicity and gender affect form, content, language and style in literature. Writers include: Silko, Erdrich, Morrison, Walker, Angelou, Giovanni, Tan, Kingston, Yamamoto, Cisneros and Viramontes. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 341 Chaucer and the Medieval Period (3 cr.) This course presents a critical interpretation, in its historical setting, of the chief imaginative work in England of the period, "The Canterbury Tales." Other representative works include "Gawain and the Green Knight," selections from Dante's "Divine Comedy," other dramatic and lyric poetry. Attention is given to the cultural and artistic setting. Prerequisite: one course from EN level 200; Every Third Year, Spring

EN 343 Shakespeare ( $\mathbf{3} \mathbf{~ c r}$.) Extensive structural and thematic analysis of Shakespearian drama is the basis of this course, which concentrates on selected problems of scholarship, criticism and performance. Required of all English majors. Prerequisites: two courses from EN level 200 300; Every Year, All

## EN 345 English Literature of the Renaissance (3 cr.)

 This intensive study of the principal genres of the English Renaissance, including "Utopia" (More), lyric poetry (Sidney), and "Romance" and "The Faerie Queen" (Spenser), places special emphasis on the major works of the Elizabethan period. Some attention isgiven to the medieval background, Renaissance art and music, and continental literature. Prerequisite: one course from EN level 200; Every Third Year, Fall

EN 348 Milton and the 17th Century ( $\mathbf{3}$ cr.) This extensive survey of themes and writers within this revolutionary period emphasizes critical approaches to poetry, prose, and drama in England from 1603 to about 1665. The course focuses on Milton's "Paradise Lost" and on works of other major writers, such as the metaphysical poets (Donne, Marvell, Herbert), and Ben Jonson, Francis Bacon and Thomas Middleton (drama). Also included are artistic form and style associated with the literature: Baroque painting (Rubens, Ribera), sculpture (Bernini), music (Gabrielli), and religious meditation (Ignatius). Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 350 18th-Century Literature (3 cr.) This study of literature of the long 18th century (1660-1800) considers authors, such as Behn, Swift, Pope, Defoe, Johnson, Fielding and Radcliffe. Emphasis is on the historical, intellectual, political and social concerns that characterize the literature of this period. Readings are thematic and generic, such as the growing popularity of the novel or the use of poetic satire to make socio-political statements. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 351 Studies in Rhetoric and Writing (3 cr.) This is an advanced course in the theory and practice of writing. The class explores the historical evolution of a rhetorical tradition or of a theoretical practice. Topics include classical rhetoric or modern theoretical practice and rhetoric. Emphasis is not only on theory, but on the sustained examination and practice of student writing guided by the theoretical or practical boundaries of the course. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 352 English Romantic Literature (3 cr.) This study of English Romanticism emphasizes the themes and intellectual concerns characterizing the period. Readings include selections from Blake, William and Dorothy Wordsworth, Coleridge, Byron, Keats, Shelley, the Brontes, Mary Shelley, Lamb, DeQuincey and others. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 355 Victorian Literature ( $\mathbf{3} \mathbf{~ c r}$.) The major writers of the Victorian period and the religious, social and scientific developments that influenced their writing are considered in this course, which includes selected readings from the poets, novelists and essayists. The course also examines the pre-Raphaelite and aesthetic movements. Prerequisite: one course from EN level 200; Every Third Year, Fall

EN 360 Literature and Popular Culture (WS 360) ( 3 cr.)
This examination of the major works in a specific genre focuses on a period in, but not restricted to, American culture. Analysis of primary texts reveals themes and patterns that emphasize the relationship between literature and culture. Sample courses include Western Fiction and Film, Detective Fiction, Literature and the Environment, etc. Topics change (as do instructors), so course may be repeated for credit Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 361 Origins of U.S. Literature (3 cr.) At the heart of our national literature lies a complex early narrative. It contains darker issues with an unresolved past, conflicting histories, encounters with the other, our Calvinist relationship with Nature and nature, a mixed psychology as colonials and revolutionaries, and the tension between our aspiration to be the city on the hill and the realities of life on the edge of wilderness. It also contains the exuberance of the new Adam (and Eve), where we can start the story over again and again. This course invites students to test and interrogate these ideas by reading authors in the founding traditions of U.S. literature, such as Charles Brockden Brown, Phillis Wheatley, Susanna Rowson, Benjamin Franklin, Ralph Waldo Emerson, Nathanial Hawthorne and Mary Rowlandson. Prerequisite: one course from EN level 200; Every Year, Spring

EN 365 The American Renaissance ( 3 cr.) This course presents a study of the dichotomy in the literature of the American Renaissance as reflected in such works as "Self-Reliance," "The American Scholar," "Civil Disobedience," "Walden," "Song of Myself," "The Scarlet Letter" and "Moby Dick." Prerequisite: one course from EN level 200; Every Year, Fall

EN 372 Law in Literature ( 3 cr.) The relationship between law and literature (essays, short fiction, and novels) is considered in this course, which focuses on themes common to both law and literature and on legal cases that serve as sources for the literary texts. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 373 Modern American Poetry ( $\mathbf{3}$ cr.) This course examines readings in major figures in modern American poetry beginning with Walt Whitman and Emily Dickinson in the 19th century. Poets from the 20th century include T.S. Eliot, W.C. Williams, Robert Frost, Wallace Stevens, Marianne Moore, Robert Lowell and Allen Ginsberg. Contemporary poets, such as Sylvia Plath, Ann Sexton, Philip Booth, Adrienne Rich, Robert Pinsky and Etheridge Knight also are studied. Emphasis is on reading poems closely and articulating connections between authors. The distinctive qualities of American themes, verse forms and language are discussed. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 377 Faulkner and Literature Between the Wars ( $\mathbf{3}$ cr.) Readings by Langston Hughes, T.S. Eliot, Anderson and Hemingway are followed by extensive structural and thematic analysis of Faulkner's major writings. The course includes close reading of the texts and consideration of problems raised by various critical approaches. Novels include "The Unvanquished," "As I Lay Dying," "Light in August," and "Go Down, Moses." Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 380 Realism and Naturalism in American Fiction ( $\mathbf{3} \mathbf{c r}$.) This lecture/discussion course examines realistic and naturalistic American fiction in the period from 1875 to 1925 with emphasis on the novel. Close reading of primary texts is supplemented by theoretical and critical essays. Writers include Twain, Henry James, Chopin, Norris, Stephen Crane, Howells, Wharton, Jewett and Wright. Prerequisite: one course from EN level 200; Every Other Year, Fall

EN 382 James Joyce ( $\mathbf{3} \mathbf{c r}$.) This course presents an intensive study of three of Joyce's major fictions: "Dubliners," "A Portrait of the Artist as a Young Man" and "Ulysses." Emphasis is on close reading of the texts to examine structure, language, allusion, narrative point of view and themes. Secondary materials provide additional theoretical and critical perspectives. Prerequisite: one course from EN level 200; Every Year, Fall

EN 387 The Men and Women of Wharton and James ( $\mathbf{3} \mathbf{c r}$ ) The fiction of Wharton and James is examined with emphasis on 1) the literary period (realism); 2) the critical theory of each writer; and 3) the relationships between the men and women portrayed. Prerequisite: one course from EN level 200; Every Other Year, Spring

EN 460 Senior Seminar in Literature (3 cr.) Topics, which are subject to change each year, include extensive and intensive study of a major author; of thematic, philosophic, or artistic patterns of major or minor authors; of a genre; or of a period. Oral presentations and discussions lead to a major paper. Open to senior English majors and, occasionally, select English minors. Prerequisite: EN 101 or EN 102H; Every Year, Spring

EN 470 Senior Thesis ( $\mathbf{3 c r}$.) Senior thesis is open only for English majors who are candidates for honors in English. Candidates must be recommended by a member of the English faculty, who consents to serve as adviser for the thesis. This adviser and the student select two additional faculty to serve as a reading committee for the student's final thesis presentation. Every Year, All

Courses offered as needed
EN 293 Internship (1 cr.) Prerequisite: EN 101 or EN 102H

## Entrepreneurship (ENT)

ENT 210 Fundamentals of Entrepreneurship (3 cr.) This course introduces students to what it means to be an entrepreneur, and helps them develop an understanding of the philosophy of entrepreneurship and how it can relate to both starting a business and improving an existing business. Students develop their need for achievement and assess themselves as nascent entrepreneurs. Every Year, Fall

ENT 310 Entrepreneurial Creativity ( $\mathbf{3}$ cr.) This course helps students gain an understanding of entrepreneurial creativity as related to the entrepreneur and the venture. Topics of exploration include the creative process, development of a viable product/service, and how to sell creative ideas. From the enterprise level,students learn to proactively manage and promote creativity throughout the venture, develop the creative potential of others, and protect their intellectual capital. Prerequisite: ENT 210 or MG 332; Every Year, Fall

ENT 320 Small Business Marketing ( $\mathbf{3} \mathbf{~ c r}$.) This course applies the principles of marketing to the process of developing a marketing plan and strategy for the small business. Students explore how the marketing plan integrates into the overall business plan and how it applies to small business operations and strategy implementation.
By reviewing case studies of successful contemporary entrepreneurs, participants develop a further understanding of what personal characteristics and insights the entrepreneur and small business owner must cultivate to be successful in marketing. Prerequisite: ENT 210; Every Year, Fall

ENT 330 Entrepreneurial Finance ( $\mathbf{3} \mathbf{c r}$.) This course addresses the myriad finance problems faced by the entrepreneur and by new and emerging businesses. The sources of capital-bootstrap, debt and equity-each have their merits and caveats for ownership and management of the new company. Other topics include: valuation of the business for liquidation, purchase, sale or harvest; use of financial ratios; and measuring and evaluating financial performance. Prerequisite: ENT 210 or MG 332; Every Year, Spring

## ENT 340 Opportunity Recognition and Negotiation

 ( 3 cr ) This course helps students identify which resources they need for their business, how to find and assess the quality of entities that can fulfill those needs, and negotiate for the best deal. Prerequisite: ENT 210 or MG 332; Every Year, SpringENT 350 Ventures in Social Enterprise (3 cr.) Drawn from the public service dimension of the University mission, this course provides guidance in the conception, design and execution of experiential service learning
projects in the nonprofit sector of the surrounding community. Students apply business concepts and tools to address social issues that comprise the missions of area nonprofit organizations. In the process, they learn the functioning of the nonprofit organization and its importance to our free enterprise system. Prerequisite: ENT 210 or MG 332; Every Year, Spring

ENT 410 Business Plan Creation (3 cr.) Students learn to create a comprehensive business plan that provides a step-by-step process to actually create a business. Prerequisite: ENT 210 or MG 332; Every Year, Fall and Spring

ENT 420 Entrepreneurial Implementation I (3 cr.) In this intensive course, students learn and apply the fundamentals of implementing a successful business. Students implement the business idea that they formulated in ENT 410. Any type of business may be implemented and may include technology firms, service businesses, manufacturing businesses, etc. This course is taken concurrently with ENT 430. Prerequisites: MG 332 or ENT 210; ENT 410; Every Year, Spring

ENT 430 Entrepreneurial Implementation II (3 cr.) This intensive course is an extension of ENT 420. Students apply the fundamentals of implementing a successful business. This course is taken concurrently with ENT 420. Prerequisites: MG 332 or ENT 210; ENT 410; Every Year, Spring

ENT 488 Entrepreneurship Internship (3 cr.) Students gain work experience under the joint supervision of a faculty member and practicing manager or business owner. Students must meet School of Business internship requirements. This course is graded on a pass/fail basis. Prerequisites: ENT 210 or MG 332; ENT 320, ENT 330, ENT 340; Every Year, All

## Film, Video and Interactive Media (FVI)

FVI 102 Introduction to Film (3 cr.) Available only to non-FVI majors and students outside of the School of Communications, this survey of the art, industry and techniques of global cinema introduces students to the significance of film as an international medium. By exposing students to the work of outstanding filmmakers and to the major elements of film language, the course helps students develop their critical faculties and visual literacy. The course includes a weekly $2 \frac{1}{2}$ hour screening with a separate lecture/discussion section. Every Year, All

## FVI 105 Video Essentials: News or Video Essentials:

 Sports ( 3 cr.) Available only to non-FVI majors (i.e., public relations, journalism, media studies and students outside the School of Communications), this course introduces the fundamentals of news gathering or sportsreporting including writing, preproduction planning, basic single-camera field audio and video acquisition and editing. There is an emphasis on evaluating the effectiveness and success of work undertaken. Students in FVI must take FVI 210 and 212 as their introductory production courses. Every Year, All

FVI 210 Fundamentals of Media Production (3 cr.) This first phase of a two-semester course gives students a thorough grounding in the basic techniques of audio and video storytelling. Students learn basic audio production, visual composition, field camera practice, lighting fundamentals, digital video editing, and an introduction to interactive concepts. This is a hands-on course that requires students to produce a number of media projects throughout the semester. This course is for students majoring in FVI only. Prerequisite: MSS 101; Every Year, All

## FVI 212 Fundamentals of Media Production II (3 cr.)

This second phase of a two-semester sequence builds on the production skills acquired in FVI 210 and introduces students to the techniques of designing and producing creative and effective audiovisual communications. Students learn to develop creative concepts and to take them from script to screen. Video editing techniques and principles of good composition, structure and program design are emphasized. This course is for students majoring in FVI only. Sophomore status required. Prerequisite: FVI 210; Every Year, All

FVI 310 Creating Interactive Media (3 cr.) This course introduces the concepts and production techniques that prepare students for creative work in interactive media. Students completing this course learn how to produce animated and interactive content for the web, mobile devices, or kiosks. Projects may include simple animations, interactive stories, photo and video viewers, web interfaces, simple games, e-cards and other interactive content. Prerequisite: FVI 210 or permission of instructor; Every Year, All

FVI 312 Projects in Interactive Media ( $\mathbf{3} \mathbf{~ c r}$.) This course focuses on the creation of advanced interactive projects. Students are challenged to create projects that incorporate multiple forms of media delivered for the web, mobile devices or kiosks. Projects may include advanced animations, interactive stories with video production, product promotions, interactive maps, web interfaces, games, educational materials, mobile apps and other interactive content. Prerequisites: FVI 310; Every Year, Spring

FVI 320 History of Film I ( $\mathbf{3}$ cr.) This course, the first in a two-semester sequence, provides a foundation in the history and aesthetics of moving image arts. Through individual films, clips, lectures and discussion, students
analyze the major international film movements, their genres, directors and themes that have contributed to the development of narrative cinema. Organized thematically, films are chosen to showcase aesthetic, historical, technological and ideological concepts and their impact on the evolution of film from its inception to 1945. Prerequisites: MSS 101; Every Year, All

FVI 322 History of Film (and Television) II (3 cr.) This second part of a two-semester sequence builds on the history and aesthetics of moving image arts in film and also television from 1945 to the present. Through individual films, excerpts from films and television clips, lectures and discussion, students analyze the evolution of global television and major international film movements, their genres, directors and themes to understand how they have contributed to the development of television entertainment and narrative cinema. Organized thematically, works of film and television are chosen to showcase aesthetic, historical, technological and ideological concepts and their impact on the evolution of film and television. Prerequisite: FVI 320; Every Year, All

FVI 340 Analysis of the Moving Image (3 cr.) How do we read images? This course explores the techniques used to create moving image media-including film, television and interactive media-from a formal and aesthetic perspective. Students learn to think and write critically about how the techniques of production work to communicate ideas and convey meaning and emotion to viewers. Sophomore status required. Prerequisite: MSS 101; Every Year, All

FVI 342 Directing Film and Television (3 cr.) This course is an introduction to the history, theory and basic concepts of narrative single camera field and multicamera studio direction for current and developing distribution platforms. This course emphasizes principles of dramatic structure, script breakdown and analysis, visualization and story boarding, preproduction scheduling and casting, working with actors to effectively shape performances and working with crew. Students prepare and direct a series of short scenes. Prerequisite: FVI 210; Every Year, All

FVI 345 Writing and Producing Media ( 3 cr.) Media messages are created to meet a variety of goals, which are tailored to appeal to defined audiences. Media can be designed to entertain, to inform, to educate, to persuade or to sell. In this junior-level course, students are challenged to discern what makes a good story or project idea for each of several different content objectives. Students work through all phases of production as they complete a series of projects during the semester, with special emphasis on creative conceptualization, message and writing. Prerequisites: FVI 210, FVI 212; Every Year, All

## FVI 355 Projects in Single-Camera Production (3 cr.)

This course challenges students to master the conceptual and technical skills of visual storytelling to produce more advanced, single-camera field projects on selected, specialized topics that may change from semester to semester. Past course content has included documentary production in South Africa and in Ireland, and narrative production for outside clients including the Connecticut Council on Problem Gambling. The course emphasizes professional production roles, including writing and directing, scheduling and production management, production, post-production, distribution and marketing. Students grapple with issues of visual esthetics, modes of representation and audience reception as they produce individual and/or collaborative projects. Prerequisites: FVI 210, FVI 212 or permission of the instructor; Every Year, All

FVI 372 Script Writing (3 cr.) Students learn to shape stories for the screen. Emphasis is on dramatic structuring, character development, pacing and dialogue. Professional screenplays are analyzed and discussed, and final projects give students the opportunity to develop an original short screenplay. (JRN 160 is not required as a prerequisite for script writing minors.) Prerequisite: JRN 160; Every Year, All

FVI 375 Advanced Camera and Lighting (3 cr.) This course covers such topics as the characteristics and qualities of light, lighting control, principles of visual composition and design, color, contrast, the properties of lenses, how film emulsions and image sensors react to light, filters, matte boxes and other image control devices, metering and exposure control, the effective use of various lighting instruments and accessories, electrical safety and the basics of gripping and gaffing on set and on location. Students learn in an active, hands-on workshop environment and produce a major project. Prerequisite: FVI 345 or permission of the instructor; Every Year, Spring

FVI 380 Projects in Audio Production ( $\mathbf{3}$ cr.) This course offers students an opportunity to develop a number of advanced-level audio projects. Topics and approaches vary and may include one or more of the following: instruction in sound design for television and motion pictures; radio programming in various genres, including news, issues, public affairs, entertainment, and sports; podcasts; audio documentary; oral histories; music production; instructional/educational programming; and radio drama. Prerequisite: JRN 160; Every Year, All

FVI 390 Projects in Multicamera Production (3 cr.) Attracting and keeping the audience's attention is the first responsibility of the director. This course gives students the opportunity to explore the art and craft of directing in a multicamera, high-definition studio environment. Participants examine the roles and responsibilities of the director, including shot composition, crew
motivation, calling a live production and ethics. Students are asked to visually design a television program from concept to completion in a number of genres, including news, sports, sitcoms, dramas and commercials. Prerequisites: FVI 210, FVI 212; Every Year, All

FVI 392 Post-Production Techniques (3 cr.) In this course, students explore such topics as the expressive capability of the editing process; how editing functions to create time, tempo and visual rhythm; the building of scenes in editing to achieve various dramatic goals; and telling the story through careful control of sound and image over time. Students gain experience in using the tools and techniques of modern digital post-production technology. Topics may include: post-production planning; continuity editing; digital video effects; compositing; green screen techniques; graphics design; 2D and 3D animation; audio mixing and sound design; interactivity; preparing video for broadband distribution and mobile devices; DVD design and authoring. Prerequisites: FVI 210, FVI 212; Every Year, All

FVI 393 Animation Techniques ( $\mathbf{3} \mathbf{~ c r}$.) Students learn to create sophisticated 2D and 3D still and animated electronic graphics for video that are aesthetically pleasing, expressive and meaningful. Principles of good design, composition and color are stressed, as well as the ability to produce visual interest in support of communication goals. Prerequisites: FVI 210, FVI 212; Every Year, All

FVI 450 Senior Seminar ( $\mathbf{3} \mathbf{c r}$.) This seminar entails an in-depth examination of issues and research perspectives in film, video and interactive media. Seminar titles vary each term and may cover subject areas such as film history, reality television, political documentaries, docudrama , and contemporary trends in the media industry. Students should consult the School of Communications course bulletin for information about each semester's offerings. Prerequisite: senior status. Every Year, All

FVI 494 Senior Project Colloquy (1 cr.) This required 1-credit discussion course must be taken in the semester prior to the student's undertaking of the Senior Project. Meeting collectively and individually, all fourth-year FVI students consult with FVI faculty several times during the term to identify and hone the presentation of their required individual Plan for Senior Project. Prerequisite: senior status in FVI. Every Year, All

FVI 495 Senior Project (3 cr.) In this capstone course, students are asked to create an individual thesis project that reflects the highest level of their abilities. From pitching their individual project ideas through writing, production and post-production, students are pushed to work at the peak of their skills. The creativity, quality and professionalism of the finished projects are judged by outside professionals and faculty and staff from the

School of Communications FVI program, and give graduating seniors important portfolio material. Senior status in FVI is required. Every Year, All

Courses offered as needed
FVI 300 Special Topics (3 cr.)
FVI 397 Summer Production Project (4 cr.)
Prerequisites: FVI 210, FVI 212

## Finance (FIN)

## FIN 201 Fundamentals of Financial Management

( 3 cr .) This course introduces students to the theory and practice of financial management. Topics include the uses and valuation of securities, the structure and purpose of capital markets, financial risk, investments and corporate financial analysis and decision making. Prerequisite: EC 111; Every Year, All

FIN 310 Investment Analysis (3 cr.) This course introduces students to the theory and practice of investment analysis. Emphasis is on the uses, characteristic and valuation of fixed income securities, equities and derivatives in the global financial marketplace. Students are exposed to both classical and modern theories of evaluating and quantifying financial risk. Prerequisite: FIN 201; Every Year, Fall

FIN 320 Financial Modeling (3 cr.) This course examines standard financial models and data analysis in the areas of capital budgeting, financial statement analysis, asset pricing, portfolio management and performance, hedging and option pricing. Students learn to extract, model and analyze data using computer spreadsheets. Prerequisite: FIN 201; Every Year, Fall

FIN 345 Risk Management and Insurance ( $\mathbf{3}$ cr.) This course covers risk management principles and the nature of insurance as a risk-transferring device to reduce various loss exposures. Topics include insurance programs, financial aspects of insurance companies and markets, insurance industry structure, managerial aspects of underwriting and pricing, and public policy issues. Prerequisite: FIN 201; Every Year, Fall

FIN 350 Financial Markets and Institutions (3 cr.) This course presents a study of financial markets and intermediaries in a global setting with emphasis on how funds flow from investors in financial assets to investors in real assets. The types and functions of markets and institutions that exist today are discussed along with the differences between them. Topics include the role of monetary policy and the operations of central banks; the regulatory environment in which financial markets and institutions operate; and the financial instruments traded in the markets today. Prerequisite: FIN 201; Every Year, Spring

FIN 356 Real Estate Finance (3 cr.) This course examines the structure of real estate markets. Topics include principles of mortgage lending; property appraisal; the secondary mortgage market; mortgage securitization and valuation; residential and commercial real estate investment; leverage and capital structure for real estate project analysis; and real estate investment in the portfolio context. Prerequisites: FIN 201; Every Other Year, Spring

FIN 360 Financial Statement Analysis (3 cr.) This course focuses on the development of analytical skills used by investors and analysts in their evaluation of various financial statements. Topics include the review and analysis of balance sheets, income statements and statements of cash flow; ratio analysis and developing pro forma financial statements to support equity analysis and credit analysis. Prerequisite: FIN 201; Every Year, Fall

FIN 380 Intermediate Corporate Finance (3 cr.) Students gain an advanced understanding of corporate finance. The main objectives are to learn to apply financial concepts, construct and implement financial decision models, and relate various financial theories to one another. Topics include capital budgeting, the valuation of firms, capital structure, cost of capital, dividend policy and risk management. Prerequisite: FIN 201; Every Year, Spring

FIN 420 Commercial Bank Management ( 3 cr.) This course examines the management of banks and other depository institutions in the current financial environment. Emphasis is placed on fundamental processes such as the management of liquidity, credit quality, investment portfolios, funding costs and capital adequacy. Maximizing shareholder value while properly managing the inherent tension that exists between these various processes is carefully described. Prerequisite: FIN 201; Every Year, Fall

FIN 430 Portfolio Theory and Practice ( $\mathbf{3}$ cr.) This course offers a rigorous examination of the theory and practice of portfolio management. Topics include portfolio construction, valuation, and performance measurement. Equity and fixed-income portfolio strategies are considered as well as the use of futures and options in portfolio management. Prerequisite: FIN 310; Every Year, Spring

## FIN 440 Introduction to Fixed Income Analytics (3 cr.)

This course introduces students to the analytical processes associated with fixed income investing. The course bridges the gap between valuing bonds based on a yield to maturity and valuing bonds as a package of zero-coupon instruments. The concepts of theoretical spot rates, par rates of the on-the-run treasury securities, duration and convexity are discussed. A binomial model is explained and used to value bonds that have built-in options. Prerequisite: FIN 201; Every Year, Fall

FIN 450 Applied Portfolio Management (3 cr.) Students apply investment and portfolio management techniques and strategies in a real-life environment by managing a portion of the Quinnipiac University Endowment fundthe Student-Managed Portfolio. Students are responsible for developing investment strategies, constructing, monitoring and rebalancing the portfolio, and reporting on actual portfolio performance. Permission of instructor required. Prerequisite: FIN 430; Every Year, All

FIN 451 Applied Portfolio Management II (3 cr.) This course is a continuation of FIN 450 for students who have excelled in Applied Portfolio Management I and wish to take a leadership role in the management of the fund. Permission of instructor required. Prerequisite: FIN 450; Every Year, All

FIN 455 Financial Markets and Monetary Policy (3 cr.) This course focuses on analysis of the immediate level of economic activity and how the tools of monetary policy can be used to affect future economic activity. Data are obtained from original sources to determine the history of key economic variables and their present status. The economic variables are then utilized to develop a class consensus on the current state of the economy. Based on this class consensus, alternative monetary policy action is considered with a consensus again being developed. A team of students from the class presents the consensus reports to the Federal Reserve Bank of Boston as part of the National College Fed Challenge. Permission of department chair required. Prerequisite: FIN 350 or EC 212; Every Year, Fall

FIN 460 Mergers and Acquisitions ( 3 cr.) This course presents the theory and evidence of corporate acquisitions and restructuring activities. Topics include the foundations of mergers and restructures, the valuation of assets, various means of financing acquisitions, defensive strategies, as well as post-merger, acquisition, and take-over performance. Prerequisite: FIN 380; Every Year, Spring

FIN 465 Working Capital Management (3 cr.) This course examines the theory and practice of cash and liquidity management. Topics include cash management, credit and accounts receivable management, collections and cash concentrations, short-term investments and borrowing, forecasting cash flows, and international cash management. Prerequisite: FIN 201; Every Other Year, Spring

FIN 470 Trading Strategies and Practices (3 cr.) This course introduces financial market microstructure and trading strategies to students. The lectures focus on how trading on exchanges is organized and regulated as well as price formation, informational efficiency and liquidity. Various trading strategies are explored using the Financial Trading Systems (FTS) simulation. Prerequisite: FIN 310, FIN 350; Every Year, Fall

FIN 485 Derivative Securities (3 cr.) This course introduces students to derivatives and the markets in which they are traded. Emphasis is on the techniques for the valuation of options, futures and related contracts as well as the use of derivative contracts in investments, corporate finance and risk management and engineering of structured products. Prerequisite: FIN 310; Every Year, Spring

FIN 488 Finance Internship ( $\mathbf{3}$ cr.) This internship in finance must be approved by the department chair and the dean in accordance with school and departmental regulations. Junior/senior status is required. This course is graded on a pass/fail basis. Prerequisite: FIN 201; Every Year, All

## French (FR)

FR 101 Elementary French I (3 cr.) This introduction to the French language focuses on oral practice, basic grammar study, and practice in reading and writing. Students who have three or more years of high school French with grades of B or above may not take this course for credit. Every Year, Fall and Spring

FR 102 Elementary French II ( 3 cr .) This course is a continuation of FR 101. Prerequisite: FR 101 or placement into FR 102. Every Year, Fall and Spring

FR 201 Intermediate French I ( $\mathbf{3} \mathbf{~ c r}$.) This course is for students who wish to develop further their ability to read, write and speak French. Reading is drawn from a wide variety of fictional works and forms (short story, plays, poems) on topics of general interest. Prerequisite: FR 102 or placement into FR 201. Every Year, Fall

FR 202 Intermediate French II ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of FR 201. Every Year, Spring

Courses offered as needed
FR 301 Advanced French I (3 cr.)
FR 302 Advanced French II (3 cr.)

## Game Design and Development (GDD)

## GDD 101 Introduction to Game Design: History,

Theory, Practice (3 cr.) This course introduces students to the history and development of games (card games, social games, digital games); theories of game design and play; the study of the social effects of games; the role of serious games for teaching and learning and production practices in the games industry. Every Year, All

GDD 110 Visual Design for Games ( 3 cr .) This foundation course in research methods for game design prepares students for upper-level course work by introduc-
ing critical, analytical and problem-solving strategies for researching and developing game concepts, story, characters, game mechanics, level, world design and the user interface. Practical hands-on methods include visual research, design journals, thumbnail sketches, concept art, visualization drawings, storyboarding, comprehensives, mind maps, diagramming, prototyping, case studies, topic and content development. Every Year, All

GDD 200 Game Production Practices ( $\mathbf{3}$ cr.) This course provides students with an overview of game preproduction planning, research and development including consideration of various platforms (consoles, PC, online, mobile and social media), game genres, game conceptualization and objectives, story development, game mechanics and playability, character, soundtrack, level design and interface. Through project work, students gain an understanding of game design life-cycle management and the roles of design teams consisting of lead designers, game mechanic designers, level/environment or world designers, writers, 2D and 3D artists; sound designers, composers, programmers and interface designers. Every Year, Spring

GDD 200 Introduction to Game Development (3 cr.) This course provides an overview of game development through platform-based project work. Students examine different game genres, game conceptualization and objectives, story development, game mechanics and playability, character, soundtrack, level design and interface. Through project work, students gain an understanding of the game development life cycle and the roles of design teams. Every Year, Spring

GDD 201 Game Design I (3 cr.) Through the analysis of select games, students critically assess game concepts, objectives, narrative structure and storyline, character development, game mechanics, playability, the potential of meaningful or serious play for teaching and learning. Students apply the results of these critical assessments to a game design proposal. Prerequisites: GDD 101, GDD 110; Every Year, Fall

GDD 202 Game Art I ( $\mathbf{3} \mathbf{~ c r}$.) This course introduces students to the underlying concepts and practical skills for the design of characters, costumes, props, levels, environments and worlds. Using sketches, concept art, drawing and storyboards, students learn the software tools required for designing and building 2D and 3D assets, while gaining knowledge of game engines. Prerequisites: GDD 101, GDD 110; Every Year, Spring

GDD 210 Game Lab I:Team Projects (3 cr.) Game Lab I is the first of a two-course sequence focusing on game production and prototyping. In Game Lab I, students work in teams to define and develop a game concept, research content, determine a development platform, use
storyboarding to develop the game mechanic and game play, build the game assets in preparation for designing a working prototype in the following semester in Game Lab II. Prerequisite: GDD 101 or permission of GDD program director.

GDD 211 Game Lab II: Team Projects ( 3 cr.) This course is a continuation of the game development begun in GDD 210. Students continue to work in teams to build a working prototype and learn the game assembly process, project management, development tracking, play testing and troubleshooting. Prerequisite: GDD 210 or permission of GDD program director.

GDD 250 Interactive Storytelling and Narrative (3 cr.) Students critically analyze narrative structure and character development based on readings of dramatic literature and viewing interactive multimedia (DVDs, websites, interactive installations and games). Students compose interactive multimedia narratives and research essays using 2D and 3D software that explore new emerging forms such as digital storytelling, interactive theater, virtual worlds and locative media. Prerequisites: GDD 101 or GDD 110; EN 102; Every Other Year, Fall

GDD 300 2D Animation for Games (IDD 301) (3 cr.)
This course explores aesthetic, critical and technical topics in motion graphics and 2D animation. Students produce projects that demonstrate knowledge and understanding of 2D animation and motion graphics used in the field of design. Prerequisite: IDD 110, IDD 161 or GDD 110; Every Year, All

GDD 301 Game Design II ( $\mathbf{3} \mathbf{~ c r}$ ) This course is a continuation of GDD 201. Through the analysis of select games, students continue the critical assessment of game concepts, objectives, narrative structures and storylines, character development, game mechanics, playability and the potential of meaningful or serious play for teaching and learning. Students apply the results of these critical assessments to a game design proposal. Prerequisite: GDD 201; Every Year, Fall

GDD 302 Game Development II (IDD 302) (3 cr.) Students continue working with software tools required for designing and building 3D assets such as characters, costumes, props, levels, environments and worlds while gaining knowledge of game engines, scripting and cross platform development. Topics include techniques of 3D modeling, texturing, lighting, object or character movement, motion capture and animation, scene planning and cut scenes, virtual camera angles, rendering, editing and compositing. Prerequisite: GDD 202; Every Year, Spring

GDD 310 Game Lab III: Team (3 cr.) Game Labs III and IV form a two-course sequence that builds upon the
experience of game design and prototyping gained in Game Labs I and II. Students work in teams to define and develop game concepts, research content, determine a development platform, use storyboarding to develop game mechanics and game play, build the game assets in preparation for completing working game prototypes in the following semester in Game Lab IV. Individual team members are assigned specific roles based their skills, and appropriate to their chosen track on game design or game art. For majors or minors in Game Design and Development. Prerequisite: GDD 211 or permission of the GDD program director; Every Year, Fall

GDD 311 Game Lab IV: Team Projects (3 cr.) In Game Lab IV, teams complete working prototypes of the designs they started in Game Lab III. Students begin to manage the life cycle of the game development process for a specific platform including troubleshooting, playtesting, and revisions. At the end of the semester, teams present the working game prototypes and provide documentation of their design and development process. Prerequisite: GDD 211 or GDD 310 or permission of the GDD program director; Every Year, Spring

## GDD 370 Acting and Directing for Game Design

(3 cr.) This course serves as an introduction to the craft of directing and acting for game production. Topics include play analysis and interpretation, director's concept, visual composition and the history and theories of directing. Students also are introduced to the basic principles of acting, including scene analysis, motivation, intention and character work. Students perform exercises, monologues and scenes. Also included: methods of actor coaching, rehearsal techniques and working with the creative game design team. As a final project, each student acts in or directs a scene for a game prototype presentation. Prerequisite: GDD 101 or GDD 110; Every Other Year, All

GDD 395 Critical Game Studies Seminar (3 cr.) In this course, students address current research in game studies, ludology or play theory to develop critical and cultural understandings of narrative, meaning and identity in digital games. The course also addresses the design and development of serious and meaningful games and the implications of new emerging forms such as digital storytelling, interactive theater, virtual worlds and locative media. Prerequisite: GDD 101 or GDD 110; Every Year, Fall

GDD 396 Games, Learning and Society (3 cr.) This course addresses the design and use of serious and meaningful games in education and the relationship of digital games to important trends in teaching, learning and literacy. Prerequisite: GDD 101 or GDD 110; Every Year, Spring

GDD 402 Game Art III (IDD 401) ( $\mathbf{3}$ cr.) This course explores advanced aesthetic, critical and technical topics in 3D computer graphics and animation. Students produce concept sketches, storyboards, animatics and lowand high-resolution renderings to complete a short 3D digital video animation that demonstrates both knowledge and understanding of the 3D computer graphics production process, a creative approach to storytelling and character development. Prerequisite: IDD 302 or GDD 302; Every Year, Fall

GDD 405 Game Audio Design (IDD 405) (3 cr.) This course examines the tradition of arranging, mixing, sound art and musique concrete while covering techniques of digital sound synthesis, recording, sampling and editing. Prerequisite: IDD 161, GDD 101 or GDD 110; Every Year, Fall

GDD 410 Game Lab V:Team Projects (FVI 410) ( 3 cr .)
Game Lab V and VI forms a two-course sequence that builds upon the knowledge and skills of prior courses and extends the experience of game production and prototyping gained in Game Labs I, II, III and IV. In Game Lab V, students form teams to develop game concepts, including game mechanics and game artwork and assets during the semester. Simulating the real-world environment of game production, team members are assigned specific roles based the skill set of their chosen track in game design or game art. Team members perform the necessary game research, planning, development and project life-cycle management, and determine the platform for development. Students learn to work effectively in a team environment, develop writing, oral and written communication skills and leadership, while becoming proficient with game development tools and environments. Prerequisite: For game design and development majors; senior status or permission of GDD program director. Every Year, Fall

GDD 411 Game Lab VI: Team Projects (3 cr.) In Game Lab VI, teams complete working versions of games begun in Game Lab V. Students manage the life cycle of the game development process for a specific platform including troubleshooting, play-testing and final revisions. As part of the completion of the game prototype, teams prepare a report that summarizes plans for distribution, software standards and quality metrics, software testing and quality assurance. At the end of the semester, teams present a working prototype and provide documentation of their design and development process. Prerequisite: For game design and development majors; senior status or permission of GDD program director.
Every Year, Spring
GDD 490 Internship ( $\mathbf{3} \mathbf{~ c r . ) ~ U n d e r ~ t h e ~ s u p e r v i s i o n ~ o f ~ a ~}$ faculty member and a participating private company, corporation, institution or community organization, stu-
dents gain real-world experience working in the field of game design. For majors or minors in game design and development. Every Year, All

GDD 495 Senior Project and Seminar I ( 3 cr.) This sen-ior-level seminar is taken concurrently with GDD 411, Game Lab VI. Students develop a portfolio, website, resume and other professional materials for presentation of game projects, which reflects their work in their chosen track in game design or game art. The seminar engages in discussions to support and critically appraise and assess the game development process of each team in the game lab and also continues to address critical and theoretical issues relevant to each team's game project. At the end of the course, students present their portfolios to a panel of department faculty and industry professionals. Prerequisite: For majors or minors in game design and development; senior status is required. Every Year, Spring

## Geography (GP)

GP 101 Introduction to Geography ( 3 cr .) This course examines the general structure and methodology of geographical study. The physical, biotic and cultural environment and people's activities are covered, as are the world's land masses, their surface features and climates, and their relationships to human, social, economic and political organization. Every Other Year, Fall

## German (GR)

GR 101 Elementary German I (3 cr.) This introduction to the German language includes oral practice, the study of basic grammar, and practice in reading and writing. Students who have three or more years of high school German with grades of B or above may not take this course for credit. Every Year, Fall

GR 102 Elementary German II ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i s ~ a ~}$ continuation of GR 101. Prerequisite: GR 101 or placement into GR 102. Every Year, Fall

## Courses offered as needed

GR 201 Intermediate German I ( 3 cr.)
GR 202 Intermediate German II (3 cr.)

## Gerontology (GT)

GT 200 Biology of Aging ( $\mathbf{3} \mathbf{~ c r}$.) The aim of the course is to study the specific and primary changes in physiological mechanisms that result in the process of aging. See description for BMS 200. Every Year, All

GT 205 Orientation to Sociology, Criminal Justice and Gerontology (SO/CJ 205) (1 cr.) This course introduces sociology, social services, gerontology and criminal justice majors to the disciplines and fields in which they are majoring. In a seminar format, students meet once a week to discuss the origins, breadth and the potential careers in their fields. The course is designed to orient the student to the professions within sociology, social services, gerontology and criminal justice through interaction with departmental faculty, former students and practitioners in the field. This course is graded on a pass/fail basis. Prerequisite: SO 101; Every Year, Spring

## GT 234 Adult Developmental Psychology (PS 234)

( 3 cr ) This course considers facts, theory and speculation about adult development and aging. Focus is on physical, cognitive and social development as well as family and career patterns for periods of young, middle and late adulthood. Prerequisite: PS 101; Every Other Year

GT 263 (UC) Sociology of The Aged (SO 263) (3 cr.) This introduction to gerontology examines the myths and realities of aging through historic, demographic and sociological analyses of the conditions of old people in our society. The ways in which social and cultural factors enter into the aging process are also considered. Prerequisite: SO 101; Every Year, All

## GT 270 Program Planning and Administration

(SO 270) (3 cr.) This course considers program planning and administration of services to the elderly; models of needs identification, the process of problem analysis, styles of leadership and administrative dilemmas; elements of grant proposal writing. Prerequisite: SO 101; Every Other Year

GT 292 Internship in Elderly Services ( 3 cr.) The student devotes eight hours a week to work in a public or private agency that provides services to the elderly and one hour a week in conference with the instructor. The student learns how an organization works, its relation to other programs serving the elderly, and the problems it encounters in meeting the needs of the elderly. Enrollment, limited to majors, requires a high standard of attendance and responsibility from the student. For majors only, junior or senior year. Prerequisite: GT 263 or SO 263; Every Year, All

## GT 305 Death, Grief and Bereavement (SO 305) (3 cr.)

Death is studied from the perspective of social interaction between the dying person, professional caregivers and family members and loved ones. Attitudes and values about death, cultural components of grief, and the function of bereavement are examined. Particular attention is paid to the social organization of death work and dying in bureaucratic settings, such as hospitals and nursing homes, as opposed to the non-bureaucratic
structure of hospice care. Prerequisite: two courses from SO, GT; Every Year, All

GT 310 Elder Law (LE 310) (3 cr.) This course introduces students to topics in the law affecting older persons, such as government benefit programs (Social Security, Medicare, Medicaid), nursing homes and incapacity. Prerequisite: SO 263 or GT 263; Every Other Year

## GT 311 Introduction to Social Work (SO 311) (3 cr.)

This course is intended to provide students with an overview of social work as a helping profession. Beginning with a preliminary understanding of the historical development of social work, students learn how changes in social work theory and practice reflect larger societal changes. Course work familiarizes students with important social work issues and concepts and discusses their application in diverse social service and human service settings. Major or minor in gerontology, sociology, social services, criminal justice or psychology and at least junior standing. Prerequisites: two courses from SO, GT; Every Year, Fall

GT 315 Case Management (SO 315) (3 cr.) Case management is a process used widely throughout health and social services as a means of assessing, planning, coordinating, monitoring and evaluating the services needed to respond to an individual's health and/or service needs to attain the dual goals of quality and cost effective care. Students in gerontology, sociology, psychology, social services and criminal justice are likely to encounter the various roles or models of case management practice as they pursue careers in human services. This course provides a foundation for case management practice in various social service settings. Prerequisites: two courses from SO, GT; Every Year, Spring

GT 318 Therapeutic Recreation (SO 318) (3 cr.) This course of study includes the principles and practices of program planning for therapeutic recreation. The course covers analysis, assessment, design, implementation and evaluation of activities. Emphasis is on intervention, gerontological terminology, documentation, record keeping and resources. Prerequisites: two courses from SO, GT; Every Other Year

GT 325 Counseling Older Clients (SO 325) (3 cr.) Students are introduced to theories and models of effective communication with select members of an elderly population; practical aspects of communication of social service workers with older clients, older parents, older patients and the terminally ill; interview and counseling techniques; and the role of social service workers, past and present. Prerequisites: two courses from SO, GT; Every Other Year

GT 365 Aging: Problems and Policies (SO 365) (3 cr.) This course considers the social problems associated with aging, particularly in the areas of health, housing, financing and family life and the governmental policies, past, present and future, that deal with these problems. Prerequisite: SO 263 or GT 263; Every Other Year, Spring

GT 381 Evaluation Research (SO 381) (3 cr.) This course studies the research methods used to evaluate the effectiveness of organizations and programs in meeting their social service goals. Methods of research are examined in depth and students become acquainted with the components of meaningful evaluations. For majors only, second semester junior or above. Every Year, All

GT 385 Social Policy (SO 385) (3 cr.) This senior seminar is designed as the capstone course for students majoring in sociology, social services, and gerontology. Social policy is examined as the process by which specific societal problems are identified, researched and translated into social action. Students in this course complete a senior thesis and senior presentation on a social policy area of their choosing. For majors only in the senior year. Every Year, All

GT 392 Internship in Elderly Services (3 cr.) Students devote eight hours each week to work in a public or private agency that provides services to the elderly and one hour each week in conference with the instructor. The student learns how an organization works, its relation to other programs serving the elderly, and the problems it encounters in meeting the needs of the elderly. Enrollment, limited to majors, requires a high standard of attendance and responsibility from the student. For juniors and seniors only. Prerequisites: one group: SO 263; GT 263, GT 292; Every Year, All

Courses offered as needed

## GT 300 Special Topics in Gerontology (3 cr.) <br> GT 302 Women, Health and Aging (SO/WS 302) <br> (3 cr.) Prerequisites SO 263 or GT 263

## Health Management (HM)

HM 404 Legal Aspects of Health Care Delivery (3 cr.) Students explore fundamental aspects of the law and the American legal system and their effects on our health care system. The course also examines the legal responsibilities and liabilities of an institution's governing board, administrators and clinical staff; and the legal and ethical rights of patients, including the patient's right to informed consent, confidentiality and commitment. This course is intended for physical therapy students only. Every Year, Fall and Spring

## Health Science (HSC)

HSC 101 Career Exploration in Health Sciences (1 cr.) This course is recommended for all health and science studies students; however it is open to any student interested in exploring careers in health sciences. The course assists students with the process of career planning through the development of appropriate skills. The course challenges students to consider their education in terms of maximizing available career opportunities. This course is graded on a pass/fail basis. Every Year, Fall and Spring

HSC 201 Career Planning and Development in the Health Sciences (1 cr.) This course focuses on assisting students in developing their individual career and professional development plans within the field of health care. Topics covered include: exploring job search strategies, resume and cover letter preparation, interviewing skills, effective business communication and presentation skills, and professionalism in the workplace. This course is graded on a pass/fail basis. Every Year, Spring

HSC 220 Health Care Essentials: Structure, Policy and Professionalism (3 cr.) This course is designed to provide prehealth care professional students with an overview of the structure, systems and policies of health care delivery in the United States. Health care delivery includes discussions of the underlying values and political influences on quality, access and finance. Considerations are made to other nation's health care systems and how these systems address societal need. Other topics include professionalism and current trends in health care systems, for example the Patient Protection and Affordable Care Act. The goal of this course is to increase students' knowledge and abilities to analyze and address health care issues from the perspective of all stakeholders. Every Year, Fall

HSC 305 Emotional/Social Intelligence for the Health Sciences (2 cr.) This course provides the student with an appreciation and understanding of the role of emotion$\mathrm{al} /$ social intelligence in everyday living and especially in the health sciences. Topics include how emotional intelligence differs from IQ , anatomy of emotions and the mind-body connection, education for and development of emotional literacy, assessing one's own social intelligence level, applying social intelligence skills to one's personal and professional lives. Personal assessments, small group experiential activities, case studies, journaling and project development are the essential methodology for this course. Every Year, Fall

HSC 315 Bioethical Issues in the 21st Century ( 3 cr .) Today's science- and technology-centric society has enabled this generation to impact medical realms that were previously out of reach. Along with this feat comes an intricate union of ethical, legal and social justice
issues. In this course, students explore their moral duty with regard to quality of life as it relates to the vast bioethical issues that permeate their daily lives. Students gain a solid understanding of bioethical principles and examine ethical dilemmas in medicine and the moral arguments that accompany them. Controversial bioethics issues such as assisted-suicide, stem-cell research, medical marijuana, organ donation and designer babies are explored though research, contemporary media and the students' own moral compasses. They study the role of public policy on bioethics and investigate cases that shaped the way modern medicine is practiced today. The course stimulates discussion leading to final group debate projects. Every Year, Fall and Spring

HSC 338 Human Anatomy I (4 cr.) This is the first course in a two-course study of human anatomy. Dissection and presentation of the human body using a regional approach provides the foundation for introducing clinical anatomy with a strong emphasis on structure/function relationships. This course teaches the anatomy of the upper extremity, back, head and neck. Each unit begins with the study of joint structure followed by muscular, nervous and circulatory systems. Clinical correlations of musculoskeletal or neuromuscular pathologies are presented to develop problem-solving skills. Prerequisites: BIO 211, BIO 212; Every Year, Fall

HSC 338L Human Anatomy Lab (0 cr.) Lab to accompany HSC 338. Every Year, Fall

HSC 339 Human Anatomy II (4 cr.) The same regional approach to the study of the human body is practiced as in HSC 338. The regions of study include the pelvis, lower extremity and the trunk. The study of the body cavities begins with an overview of surface anatomy and surface projections of internal viscera. The contents of the thoracic, abdominal and pelvic cavities are identified with an emphasis on interrelationship of visceral structures. Clinical correlations are presented from a systems approach to the study of the body cavities. Course includes a lab component. Prerequisite: HSC 338; Every Year, Spring

HSC 339L Human Anatomy II Lab (0 cr.) Lab to accompany HSC 339. (2 lab hrs.) Every Year, Spring

HSC 340 Kinesiology I (4 cr.) Kinesiology I introduces the basic principles of kinesiology. Numerous problemsolving processes and skills are developed throughout the semester. Forces and torques in static clinical free body diagrams are studied. The student learns to identify different muscle(s) interactions/combinations. Students then study movement and movement patterns of the upper extremity, comparing one area of the body to another. Course includes a lab component. Prerequisite: MA 141; Every Year, Fall

HSC 340L Kinesiology I Lab (0 cr.) Lab to accompany HSC 340. (2 lab hrs.) Every Year, Fall

HSC 341 Kinesiology II (4 cr.) Students study movement and movement patterns of the lower extremity and trunk, including normal gait. Both the kinematics and the kinetics at the hip, knee and ankle are emphasized, especially in relationship to the closed kinetic chain. Normal gait is introduced and becomes the central focus for this semester. Course includes a lab component. Prerequisite: HSC 340; Every Year, Spring

HSC 341L Kinesiology II Lab ( 0 cr .) Lab to accompany HSC 341. (2 lab hrs.) Every Year, Spring

HSC 342 Neuroanatomy I ( $\mathbf{2}$ cr.) This course presents the gross anatomy and development of the central nervous system. Major structures and landmarks within each major brain vesicle and spinal cord are covered. Prerequisites: BIO 211, BIO 212; Every Year, Fall

HSC 343 Neuroanatomy II (3 cr.) This course deals with the function of the systems and structures covered in HSC 342 including major efferent and afferent pathways. Emphasis is placed on the motor control mechanisms for posture and movement and their involvement in common neuropathologies treated by a physical therapist. Prerequisite: HSC 342; Every Year, Spring

HSC 375 Clinical Immunology ( $\mathbf{3}$ cr.) This Immunology course involves topics related to the immune system, particularly the human immune system. Students examine and discuss the current understanding of the immune response. The immune system is designed to differentiate self and non-self and does so via both the innate and the adaptive immune systems. The two arms of the adaptive immune system, humoral immunity and cellular immunity, are discussed in detail. A considerable effort is spent on immunodeficiencies, immunotherapies and immunopathologies. Students may receive credit for BMS 375 or HSC 375, but not both. Prerequisite: BMS 213, BMS 370 or BIO 102; Every Year, Spring

## HSC 397 Prehealth Professions Clinical Affiliation

( 3 cr ) This apprenticeship program pairs an undergraduate student who displays maturity, dedication and sensitivity with a health professional in his or her field of interest for a 12 -week period. The affiliation is designed to provide the student with the opportunity to observe social, ethical and medical issues in a clinical setting. Professional dress is required. Students may register for the course according to the following criteria: permission of faculty; completion of a minimum of three semesters at Quinnipiac; satisfactory GPA. Prerequisites: BIO 211, BIO 212; Every Year, Spring

Courses offered as needed
HSC 261 (UC) Scientific Study of Mummies (3 cr.) HSC 301 Health Care Challenges and Team-Based Solutions ( 1 cr .)
HSC 310 Responsible Citizenship and Diversity Awareness in Health Care (3 cr.)

## Hebrew (HBR)

HBR 101 Introduction to Modern Hebrew (3 cr.) This is an introductory course in modern Hebrew. Students begin to achieve basic proficiency in reading, writing, speaking and comprehending modern Hebrew. Students are introduced to the Hebrew alphabet and use Hebrew script. They learn elementary conversational skills and basic Hebrew grammar. Every Other Year, Fall

## HBR 102 Introduction to Elementary Modern

Hebrew II (3 cr.) This course is a continuation of Hebrew 101. Students review and expand their grammatical study leading to deeper comprehension of style and usage. Students learn the fundamentals of grammar and syntax as well as idioms and special expressions. Emphasis is given to all four communicative skills (speaking, reading, listening and writing). The semester covers the study of the present tense, basics of the past tense, and some of the future tense in most of the conjugation models as well as numbers, colors, daily life situations, etc. Prerequisite: HBR 101; Every Other Year, Spring

## History (HS)

HS 111 (UC) The Rise of the West (3 cr.) Beginning with the origins of Western civilizations in the ancient Near East, students examine the development of Western culture and society from its beginnings through the 16th century, with emphasis on the nature and values of three successive polities: the classical world of Greece and Rome, the Middle Ages, and the origins of the modern world in the Renaissance/Reformation. Consideration is given to the idea of the West and its interaction with and contact with non-Western cultures and peoples. Every Year, All

HS 112 (UC) The West in the World (3 cr.) Beginning with the emergence of the modern state in the 16th century, students examine the social, political, economic and cultural developments of Western civilization and its interaction with the rest of the world. Emphasis is on the growth of science and technology in the 17th century, the emergence of the Enlightenment in the 18th century, the age of industrialization, nationalism and imperialism, social upheaval in the 19th century, the domination of the West over the worlds and challenges to that domination during the 20th century. Every Year, All

HS 131 (UC) U.S. History to 1877 (3 cr.) This course traces the formation and expansion of the American nation from colonial settlement through Reconstruction using selected episodes. Themes explored include the development of a national identity, models of citizenship, the role of government, and divisions based upon gender, ethnicity, race and class. Every Year, All

HS 132 (UC) U.S. History Since Reconstruction (3 cr.) This course explores the evolution of the American people and their nation through the major political, social and economic changes of the late 19th century to the present. Key themes include changing expectations of governance, the quest to achieve the full promise of the Declaration of Independence and the U.S. ascent to global hegemony. Every Year, All

HS 208 (UC) Modern World History (3 cr.) This course covers the history of the world since the 19th century focusing on the experiences and perspectives of the nonWestern world. Students study the rise of nationalism, the disintegration of empires, and the growth of communal and ethnic strife across the globe in the 20th century. Prerequisites: one group: QU 101; one course from HS level 100; Every Year, All

HS 209 (UC) Twentieth-Century Europe ( 3 cr.) Events in Europe during the 20th century radically transformed the world. The century began, and perhaps ended, in periods of vibrant intellectual, social and cultural development and optimism. In between these eras, however, Europe was at the center of the two bloodiest wars humanity has ever known and the rise of brutal totalitarian states. Students examine the complex cross currents in European society during the period roughly from the 1890s to the present, focusing on the political, social, intellectual and economic developments in European society that helped shape this turbulent century. Students also learn about the impact of non-European peoples, particularly those of Africa and Asia, on internal European developments. Prerequisites: one group: QU 101; one course from HS level 100; Every Year, All

HS 210 (UC) Contemporary America (3 cr.) This survey of American history from 1945 to the present focuses on both social and political matters. Students study topics including the McCarthy era and the nuclear age, the civil and women's rights movements, Nixon and the Watergate crisis, gay liberation, the Reagan revolution and end of the Cold War, and the era of American global dominance and its challenges. Particular attention is given to the impact of the diverse cultures and peoples that have emerged in contemporary American society. Prerequisites: one group: QU 101; one course from HS level 100; Every Year, All

HS 211 Popular Culture in American History (3 cr.) This course focuses on an interpretation of American history through popular culture. Samples of popular culture materials in various historical periods are examined with special attention to music, film, television, and sports. Prerequisite: one course from HS level 100; Every Other Year, All

HS 227 Russian Cultural and Intellectual History (3 cr.) Students are introduced to changing concepts of authority and the role of reason in the ordering of social and cultural values, the cultural mission of Russian Orthodoxy, the growth of a secular cultural elite, and the modern struggle to define individual and community and values in literature. This course includes readings in Russian thought and literature. Prerequisite: one course from HS level 100; Every Other Year, All

HS 228 Twentieth-Century Russia ( $\mathbf{3} \mathbf{~ c r}$.) This course considers Russian politics, society and culture in the 20th century, the Soviets in world affairs, and changing American views of the former Soviet Union. Prerequisite: one course from HS level 100; Every Other Year, All

HS 229 Irish History ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ e x a m i n a t i o n ~ o f ~ I r i s h ~}$ history from the pre-Christian Celtic era to modern times focuses on the changing character of Irish culture reflected in literary, political and religious documents. Special consideration is given to the origins of modern political and sectarian conflicts through a consideration of the history of Anglo-Irish relations, particularly the ramifications of the Tudor conquest, the Great Hunger and the rise of Irish nationalism. Prerequisite: one course from HS level 100; Every Other Year, All

HS 235 History of Modern China/Asian Studies (3 cr.) Students are introduced to the political and social institutions of China, schools of thought, legal and moral concepts and literary, artistic and intellectual developments, elements of stability and change and international contacts to recent times. Prerequisites: one course from HS level 100; Every Year, All

## HS 236 History of Modern Japan/Asian Studies (3 cr.)

This course considers the historical background of modern Japan; period of seclusion; restoration of a centralized monarchy; economic and political developments, establishment of an empire and World War II and postwar period. Prerequisite: one course from HS level 100; Every Year, All

HS 254 Colonial Latin America (3 cr.) This course offers an introduction and examination of the history of Latin America and its people from Pre-Columbian times through independence. The course focuses on both the indigenous and European peoples and the many consequences of their interactions. Some areas of examination
include European expansion and conquest, the impact on and reactions of indigenous populations, the formation of a colonial society, issues of race, ethnicity, class, and gender, and the establishment of economic and political structures. Prerequisite: one course from HS level 100; Every Year, All

## HS 286 Introduction to Medieval Europe (3 cr.) This

 course provides a general overview of the Middle Ages from late Antiquity to the crises of the 14th century. It explores the period of European history that holds the foundations of much of western society. Topics of particular significance include: the Medieval Church, the rise of the university, relations with the East, the Crusades and the growth of towns and trade. Prerequisite: one course from HS level 100; Every Other Year, All
## HS 296 The American Presidency Since 1945 (3 cr.)

This course reviews the history of the period through the presidencies of the post-1945 years. Readings and discussions are mostly biographical. Biographies of two or three of the presidents are studied plus a short text on the period. Special emphasis is on the growth of presidential power culminating in Watergate. Prerequisite: one course from HS level 100; Every Year, All

HS 301 Special Topics II-European History ( $\mathbf{3}$ cr.) This course focuses on readings and discussion of historical topics of special interest to students enrolled in the course. Prerequisite: one course from HS level 200.

HS 303 Historiography and Historical Methods (3 cr.) This advanced seminar is intended for majors and other students interested in deepening their knowledge of the techniques of reading, writing, researching and interpreting history. Students get a broad introduction to the concept of historiography and consider the ways in which thinking about the past has changed over time. Students also learn the foundational skills needed for the researching and writing of history, including an introduction to basic research techniques, compilation and organization of primary and secondary source materials, and the practical and theoretical skills necessary to undertake historical writing. Prerequisite: one course from HS level 200; Every Year, Spring

HS 305 Vietnam (MSS 305) ( $\mathbf{3} \mathbf{c r}$ ) This course presents a study of the Vietnam Era and draws conclusions about policy for the future. Media coverage of the war and its effect on both national policy and political change are emphasized. Prerequisite: HS 111, HS 112, HS 131, HS 132 or MSS 101; Every Year, All

HS 307 The Holocaust (MSS 307) (3 cr.) Through an examination of historical texts, literature and film, this course examines the systematic destruction of 10 million human beings at the hands of the Third Reich. Prerequisite: one course from HS level 200; Every Year, All

HS 308 U.S. Women's History (WS 308) (3 cr.) This course covers the experience of women in America before 1900. Women's work in the family and community is stressed. Individual research is required on varied topics, such as women and rural life, women and medicine, women in the professions, women and the charter of institutions, women and human rights, and women and the sea. Prerequisite: one course from HS level 200; Every Year, All

HS 309 Women in America 1920-Present (WS 309) ( 3 cr. ) This course covers the experience of women in the 20th-century United States. Women's economic and political roles are stressed, and individual research on a specific topic is required. In past years, topics have included American women and their role in the world and women and rural life. Prerequisite: one course from HS level 200; Every Year, All

HS 316 The European Renaissance (3 cr.) This course provides a topical exploration of the period commonly referred to as the Renaissance. It explores the period known for innovations in art and literature, but also addresses the political and social backdrop of Northern Italy and beyond. Topics of particular importance include changes in literature and education, innovations in art, modes of behavior and the emergence of modern political ideas. Prerequisite: one course from HS level 200; Every Other Year, All

HS 317 The European Reformation ( $\mathbf{3} \mathbf{~ c r}$.) This course explores Western Christendom from the late Middle Ages through the 17th century during the Age of Reformation. The central focus of the course is religion, but since the Reformation did not occur in isolation, it addresses a variety of themes in the study of early modern Europe. The aim of this course is to understand the major figures, movements and ideas that contributed to the division of Western Christendom into numerous confessional communities. Prerequisite: one course from HS level 200; Every Other Year, All

HS 318 European History, 1555-1715 (3 cr.) Students review European civilization from the Peace of Augsburg to the death of Louis XIV, including the growth of the state, the development of the bureaucracy and diplomacy, the increase in warfare and the political struggle over taxation, the scientific revolution, and the shift toward secular values. Prerequisite: one course from HS level 200; Every Other Year, All

HS 319 European History, 1715-1815 (3 cr.) This course presents a survey of old regime, Enlightenment, French Revolution and Napoleonic eras in European history; movements of thought and culture and their social background; the feudal reaction and middle class protest in France, and national reactions to the French develop-
ments elsewhere in Europe. Prerequisite: one course from HS level 200; Every Other Year, All

HS 320 European History, 1815-1914 (3 cr.) Political, social and economic developments in Europe from the Congress of Vienna to the outbreak of World War I are examined. Legitimacy and the Concert of Europe; industrialization, liberalism, revolution, nationalism and imperialism also are considered. Prerequisite: one course from HS level 200; Every Other Year, All

HS 321 European History, 1914-1945 (3 cr.) This course presents a study of World War I and its economic, social, political and ideological consequences. The collapse of the Versailles settlement and interwar period is considered. World War II is covered, as are diplomatic and military consequences for the Cold War era. Prerequisite: one course from HS level 200; Every Other Year, All

HS 331 The British Empire and Commonwealth (3 cr.) Students study the expansion, consolidation, workings and eventual disintegration of the modern British Empire. The course begins in 1600, with the creation of the English East India Company. Students learn about the growth of the Empire in detail, touching on the colonial experiences of India, the West Indies, China, the Middle East and the African continent. Finally, students examine the emergence of nationalism in the colonized regions and the subsequent collapse of empire in the 20th century. Special emphasis is placed on how the major colonies were affected by British rule, as well as the contributions that subject peoples and cultures made to the unfolding of colonial history and the trajectory of Empire. Students should expect to attend lecture regularly, participate in weekly class discussions, as well as demonstrate mastery over the material in written assignments. Prerequisite: one course from HS level 200; Every Other Year, All

HS 332 History of India ( $\mathbf{3} \mathbf{c r}$.) Students examine the history of the South Asian subcontinent between 1500 and 1950, roughly. Beginning with the establishment of the Mughal Empire in approximately 1526, students critically discuss the shift from native empire to British rule in the 1800s, as well as look at the various challenges to British rule and the Indian independence movement of the 20th century and its effects. Along the way, students analyze key historiographical debates on the history of the subcontinent, such as the reasons for the decline of the Mughal Empire, the foundations of British rule, Hindu-Muslims relations, and the impact of the Raj on social and familial relations. Students should expect to attend lecture regularly, participate in weekly class discussions, as well as demonstrate mastery over the material in written assignments. Prerequisite: one course from HS level 200; Every Other Year, All

HS 333 The Middle East, 1300-1919; Critical Issues ( 3 cr .) Students analyze the economic, cultural and political developments in the Middle East between 1300 and 1919, beginning with the rise of the Ottoman Empire in roughly 1300 through the gradual shift from Ottoman to European influence in the 19th century. Students also discuss the rise of nationalism and the effect of World War I on the political map of the Middle East, paying close attention to events in Saudi Arabia and modernday Israel. Emphasis is placed on certain critical issues in the study of the Middle East, such as the status of women, terrorism and the place of Islam in Middle Eastern history. Participants take a close look at both contemporary viewpoints and historiographical debates surrounding these issues. Students should expect to attend lecture regularly, participate in weekly class discussions, as well as demonstrate mastery over the material in written assignments. Prerequisite: one course from HS level 200; Every Other Year, Spring

HS 340 The Colonial Period to 1763 (3 cr.) Through lectures and discussion of source and secondary readings, the American Colonial period to the pre-Revolutionary era is considered in all its aspects: social, political, religious and literary. Emphasis is on the increasing similarity and the approach toward unity of the several colonies. Prerequisite: one course from HS level 200; Every Other Year, All

HS 341 The American Revolution (3 cr.) Through lectures and discussions based on source and secondary readings, this course considers American history from 1763 to 1787, the pre-Revolutionary period, military, political and theoretical aspects of the Revolution, the Confederation, and the writing of the Constitution. Emphasis is on the political thought that culminated in the creation of the Constitution. Prerequisite: one course from HS level 200; Every Other Year, All

HS 342 The Early American Republic (3 cr.) This course considers American history from 1787 to 1848. Emphasis is on the ratification of the Constitution, the administrations of Washington, Adams, Jefferson and Madison; the growth of political parties; and political action stemming from differing theoretical positions. The course also examines culture and society in the era of good feeling and the Jacksonian period, and considers the changing position of the average American citizen. Prerequisite: one course from HS level 200; Every Other Year, All

HS 344 Civil War and Reconstruction ( $\mathbf{3} \mathbf{c r}$.) The economic, social and political history of the United States in the mid-19th century is examined with emphasis upon the Civil War. Also explored are long-range and immediate causes for Southern secession, the military, naval and diplomatic conflict; domestic developments

North and South, 1861-65; postwar problems and the history of Reconstruction, 1865-77. Prerequisite: one course from HS level 200; Every Other Year, All

HS 345 The Gilded Age and the Progressive Era (3 cr.) This in-depth study of the major developments that influenced the emergence of modern America includes industrial and naval expansion; social, political and religious movements; and the creation of an American empire. The course also considers the impetus to reform that characterized the first two decades of the 20th century. Prerequisite: one course from HS level 200; Every Other Year, All

HS 346 The United States from WW I to WW II (3 cr.) American politics, culture and society during the Great War are examined, as are the prosperous ' 20 s, the Great Depression and the Second World War. Increasing American involvement in world affairs is considered. Differing historical interpretations of the period are studied. Prerequisite: one course from HS level 200; Every Other Year, All

HS 347 U.S. Foreign Policy from the American Revolution to the Present ( $\mathbf{3} \mathbf{~ c r}$.) This course presents a topical interpretation of the formulation and execution of American foreign policy from the first Washington administration to Vietnam. American diplomacy in crisis is studied. Prerequisite: one course from HS level 200; Every Other Year, All

HS 352 The History and Social Impact of Baseball in America (SPS 352) (3 cr.) This course covers the role of baseball both as an agent and as a reflector of social change in America from the mid-19th century to the present. While developments and activities on the field are not ignored, greater emphasis is placed on events surrounding the game. Topics include the racism of the 1880s; the transition from a pastoral pastime to a billiondollar industry; the role of baseball in the assimilation of immigrants; the development of the Negro Leagues and the All-American Girls Professional Baseball League; the Jackie Robinson experiment; the growth of unionization in the sport and the most recent Latino wave of players. Students explore how each of these developments is embedded in and reflective of the larger culture. Prerequisite: one course from HS level 200; Every Year, Spring

HS 408 Seminars in History ( $\mathbf{3} \mathbf{~ c r}$ ) Seminars are taught by members of the department in areas of their special competence. Topics are selected in consultation with juniors in the major. Emphasis is on organization and presentation of research. Open to second-semester juniors and seniors in the major and to other qualified upperclassmen by permission of department and instructor. Prerequisite: HS 303; Every Year, All

Courses offered as needed
HS 111H Honors The Rise of the West (3 cr.)
HS 200 Special Topics in History ( 3 cr.) Prerequisite: one course from HS level 100
HS 213 The Roman World (3 cr.) Prerequisite: one course from HS level 100
HS 215 American Business History (3 cr.) Prerequisite: one course from HS level 100
HS 271 History of Southeast Asia 1 (3 cr.) Prerequisite: one course from HS level 100
HS 272 History of Southeast Asia 2 (3 cr.) Prerequisite: one course from HS level 100
HS 273 African History and Culture ( $\mathbf{3}$ cr.) Prerequisite: one course from HS level 100
HS 294 American Civilization: Prosperity and Depression in the 1920s and 1930s ( 3 cr .) Prerequisite: one course from HS level 100
HS 300 Special Topics in American History (3 cr.) Prerequisite: one course from HS level 200
HS 302 Special Topics III-World History ( 3 cr.) Prerequisite: one course from HS level 200
HS 310 The Ancient Near East (3 cr.) Prerequisite: one course from HS level 200
HS 311 The Ancient Hebrews ( 3 cr.) Prerequisite: one course from HS level 200
HS 312 Ancient Greece ( $\mathbf{3 ~ c r . ) ~ P r e r e q u i s i t e : ~ o n e ~ c o u r s e ~}$ from HS level 200
HS 313 The Roman World (3 cr.) Prerequisite: one course from HS level 200
HS 314 Europe in the Early Medieval Period, 325-842 ( 3 cr .) Prerequisite: one course from HS level 200
HS 315 Introduction to Medieval Europe: Europe in the High Middle Ages ( $\mathbf{3} \mathbf{~ c r . ) ~ P r e r e q u i s i t e : ~ o n e ~}$ course from HS level 200
HS 322 History of World War I ( 3 cr.) Prerequisite: one course from HS level 200
HS 323 World War II (3 cr.) Prerequisite: one course from HS level 200
HS 324 History of England to 1688 ( $\mathbf{3}$ cr.) Prerequisite: one course from HS level 200
HS 325 History of England: 1688 to the Present (3 cr.) Prerequisite: one course from HS level 200
HS 327 Islamic Societies and Cultures to 1300 ( 3 cr.) Prerequisite: one course from HS level 200
HS 330 History of Western Medicine (SV 330) (3 cr.) Prerequisite: one course from HS level 200
HS 348 The American West to 1900 ( 3 cr.) Prerequisite: one course from HS level 200
HS 351 The New South ( $\mathbf{3} \mathbf{c r}$ ) Prerequisite: one course from HS level 200
HS 400 Special Topics in History (3 cr.) Prerequisite: one course from HS level 300
HS 409 Honors Essay in History (3 cr.) Prerequisite: HS 408

## Interactive Digital Design (IDD)

IDD 110 Design Research and Methods (3 cr.) This foundation course in research methods for art and design introduces informed strategies for problem solving and prepares students for upper-level coursework in interactive digital design. Emphasis is placed on the role of critical thinking in the design process. Theoretical models of design analysis are introduced. Practical hands-on methods include visual research, design journals, thumbnail sketches, mind maps, storyboards, comprehensives, diagramming, prototyping, case studies, topic and content development and other forms of conceptualization. Every Year, Fall, Spring and Summer Online

IDD 160 Digital Design I (3 cr.) This course presents an introduction to the design process using professional level software for digital image creation and editing, typesetting and typography, page layout and design in preparation for advanced course work. Students produce course projects that demonstrate creativity, design concepts, critical thinking, aesthetic principles and basic technical competence. Every Year, Fall, Spring and Summer Online

IDD 161 Digital Design II (IDD 161) (3 cr.) This course is a continuation of IDD 160 and extends the design process using professional level software for the creation of web pages and web design in preparation for advanced course work. Students produce course projects that demonstrate creativity, design concepts, critical thinking, aesthetic principles and basic technical competence. Prerequisites: IDD 110, IDD 160; Every Year, Fall, Spring and Summer Online

IDD 210 Graphic Design History (3 cr.) This course surveys the historical and cultural events, movements and achievements that laid the groundwork for the contemporary practices and products of graphic design. Through lecture, video, discussion, research and studio projects, students are introduced to the visual history, the innovators and the technologies that influenced and transformed the practices of visual communication. Prerequisite: IDD 110; Every Year, Fall and Spring

IDD 250 Interactive Narrative Forms (3 cr.) Students read, review and critically analyze select examples from interactive studies literature and interactive multimedia. Students write and create interactive research essays for online distribution. Through reading, research and practice, students gain a broader understanding of what encompasses an interactive experience. Prerequisites: IDD 110, IDD 161; Every Year, Fall and Spring

IDD 270 Typography I ( $\mathbf{3} \mathbf{~ c r}$.) This course enables the student to both understand type and to use it as a design element. Using current computer graphics technology,
topics explored include the use of type, page layout, color and the importing of graphics. Using professional page layout software, students create projects that demonstrate both design aesthetics and technical skills. Finished pieces are printed and become part of the student's portfolio. Prerequisite: IDD 110; Every Year, Fall

IDD 301 Motion Graphics I (GDD 300) (3 cr.) This course explores aesthetic, critical and technical topics in motion graphics and 2D animation. Students produce projects that demonstrate knowledge and understanding of 2 D animation and motion graphics used in the field of design. Prerequisites: IDD 110, IDD 161; Every Year, Fall and Spring

## IDD 302 3D Graphics and Animation I (GDD 302)

( 3 cr.) Students explore the use of professional-level software to create 3D computer images and animation for print, interactive multimedia, motion graphics, computer games and the Web. Topics include techniques of 3D modeling, texturing, animation, rendering, editing and compositing. Students develop projects that demonstrate both creativity and an introductory knowledge of 3D computer graphics. Prerequisite: IDD 301; Every Year, Spring

IDD 305 Digital Photography ( 3 cr.) This course explores the aesthetic, critical and technical topics in the creation of photographic images. Through practice, research and critique, students develop the conceptual, technical and critical skills needed to create innovative and creative photographic projects. Prerequisite: IDD 161; Every Other Year

IDD 315 Mobile Interaction Design (3 cr.) This course covers practical techniques for researching, designing and prototyping mobile web, applications and experiences. Some of the topics covered include wireframe creation, user studies and paper and digital prototyping. Prerequisite: IDD 301; Every Year, Spring

IDD 370 Typography II ( $\mathbf{3} \mathbf{~ c r}$.) This course picks up where IDD 270 leaves off by instructing in advanced typographic design; the use of grid structures; juxtapositions of type and image; and preparation for offset printing. Using the current computer technology, students create projects that demonstrate both an advanced knowledge of design/typography and current digital production processes. Finished pieces are printed and become part of the student's professional portfolio. Prerequisite: IDD 270; Every Year, Spring

## IDD 401 3D Computer Graphics and Animation II

 (GDD 401) (3 cr.) This course explores advanced aesthetic, critical and technical topics in 3D computer graphics and animation. Students produce concept sketches, storyboards, animatics and low and high resolution ren-derings to complete a short 3D digital video animation that demonstrates both knowledge and understanding of the 3D computer graphics production process, a creative approach to storytelling and character development. Prerequisite: IDD 302; Every Other Year, Fall

IDD 405 Soundscapes (GDD 405) ( 3 cr .) This course examines the tradition of arranging, mixing, sound art and musique concrete while covering techniques of digital sound synthesis, recording, sampling and editing. Prerequisite: IDD 161; Every Other Year, Fall

IDD 410 Advanced Interactive Authoring ( $\mathbf{3}$ cr.) This course explores advanced aesthetic, critical and technical topics in web site design, development, structure and information architecture. Students use problem-solving methods of design research and analysis combined with authoring and scripting environments to enhance design, interaction, usability and effective communication. Topics include current processes and technologies of web design, web standards and media theory. Prerequisites: IDD 250, IDD 301; Every Year, Fall

IDD 440 Motion Graphics II ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~}$ explores advanced aesthetic, critical and technical topics in motion graphics and animation. Topics include typography and motion graphic design and layout, editing digital video, and audio. Students use problem-solving methods of design research and analysis to produce digital video animations that demonstrate both knowledge and understanding of motion graphics, and that provide them with professional entry into the field. Prerequisite: IDD 301; Every Other Year, Spring

IDD 480 Senior Seminar and Portfolio ( 3 cr .) In this course, students consider critical issues in interactive arts and prepare a portfolio, web site, resume and other professional materials. For majors or minors in interactive digital design. Senior status is required. Every Year, Spring

IDD 490 Internship ( $\mathbf{3}$ cr.) Under the supervision of a faculty member and a participating private company, corporation, institution or community organization, students gain real-world experience working in the field of digital design. For majors or minors in interactive digital design. Junior status required. Every Year, All

Courses offered as needed
IDD 200 Special Topics in IDD ( 3 cr.) Prerequisite: IDD 110
IDD 300 Special Topics in IDD ( 3 cr.) Prerequisite: IDD 160 or AR 158
IDD 305 Digital Photography ( 3 cr.) Prerequisite: IDD 161
IDD 400 Special Topics in IDD ( 3 cr .)
IDD 420 Alternative Interfaces ( $\mathbf{3} \mathbf{~ c r}$.) Prerequisites: IDD 301, IDD 315

## International Business (IB)

IB 201 (UC) Globalization and International Business ( 3 cr .) This course introduces students to issues concerning globalization and international business. Students examine the critical role of international trade and international investment, as well as the impact of multinational corporations on the globalization process. The role of the business community in reducing the negative effects of globalization while at the same time availing itself of its benefits is considered. Global issues such as poverty, economic development and education, and the formulation of sustainable, environmentally friendly development strategies are addressed. Insights are drawn from social sciences disciplines such as economics, political science, sociology and cultural geography. Prerequisite: EC 111 or QU 101; Every Year, All

IB 311 International Marketing ( $\mathbf{3} \mathbf{~ c r}$.) This overview of the challenges and constraints, opportunities and complexities in marketing of goods, services and ideas in overseas markets provides an understanding of the theoretical backdrop to international trade and marketing. Prerequisite: IB 201; Every Other Year, Spring

## IB 313 International Marketing and Marketing

Research (3 cr.) Students learn to understand and satisfy marketing managers' information needs: demand potential, competition, regulations and accepted procedures in relevant business/geographic areas. Research design, quantitative and qualitative data collection, questionnaire design, data analysis, implications of results, and written/oral reports are included. This methodological course assumes basic understanding of marketing in a global environment. Prerequisite: EC 271; Every Year, Fall

IB 320 Introduction to Global Entrepreneurship (3 cr.) This course introduces students to the major topics in global entrepreneurship, including: 1) the critical roles and motivations of the national governments, multilateral institutions, and international agreements in shaping the rules and conditions of global opportunities and challenges; 2) the role of international entrepreneurship in this complex global environment; and 3) issues concerning how to identify opportunities, build a start-up, manage its growth and resources in a global environment. The course introduces some basic skills, such as country risk analysis, business model building and valuation of an international business opportunity. The course is taught by lecture, case analysis and experiential projects. Prerequisite: IB 201; Every Year, Fall

IB 324 Negotiating Internationally (3 cr.) The course focuses on analyzing the international context of different dimensions of negotiations and related topics, such as communication, conflict, conflict resolution, group, power, influence, persuasion and mediation. Special emphasis is
placed on understanding how culture influences the processes as well as styles of negotiation behavior of different nationalities. Prerequisite: IB 201; Every Year, Fall

IB 335 International Finance ( $\mathbf{3} \mathbf{~ c r}$.) This course presents a study of the financial management of multinational corporations, including foreign exchange risk management, financing decisions, investment decisions and funds remittance/transfer decisions as firms operate in a competitive global economy and face currency risks, political and regulatory risks. Prerequisite: IB 201, FIN 201; Every Year, Fall and Spring

## IB 345 Two-Way Management of the Global Supply

 Chain (3 cr.) Students are introduced to strategic and tactical issues in the global supply chain management such as what to make, what to buy and how to coordinate a global manufacturing and supply system. The focus is on procurement that includes: quality control, order processing, value analysis, scheduling, warehousing, inventory control, customer service, negotiation and legal issues. Prerequisite: IB 201; Every Year, SpringIB 352 International Management (3 cr.) This course addresses the theory and practice of strategic management and organizational behavior in a global environment with a specific emphasis on international human resource management. When dealing with host country managers, employees, suppliers, distributors, customers and government officials, as well as leading multicultural project teams, the knowledge and understanding of cultural differences is critical and is a major emphasis of this course. Within this context, the course also addresses cross-cultural communication, selection and management of expatriates, and global leadership skills. In addition, this course introduces the student to the reading and interpreting of academic international management research articles and highlights some of the special challenges related to doing and interpreting cross-cultural research. Prerequisite: IB 201; Every Year, Fall

## IB 401 International Strategy and Business Plan (3 cr.)

 This course serves two purposes. First, it allows the student to integrate, into a comprehensive country marketentry project, the knowledge acquired in the core international business courses. This includes country assessment, marketing, finance and management dimensions, as well as a sensitivity section on the impact of a current event on the recommendation. Secondly, it allows the student to think beyond the confines of the country itself, and to consider the strategic ramifications of offering that product/service in that country market. The firm's global strategy and thinking creatively about how to compete in the chosen industry are emphasized. Prerequisites: IB 313, IB 335, IB 352; Every Year, SpringIB 488 International Business Internship (3 cr.) This internship in international business must be approved by the department chairman and the dean in accordance with school regulations. This course is graded on a pass/fail basis. Prerequisites: IB 201, IB 313, IB 335, IB 352; Every Year, All

Courses offered as needed
IB 105 (UC) International Business Environment (3 cr.) IB 355 Advanced Topics in International Financial Management (3 cr.) Prerequisite: IB 335 or FIN 335 IB 362 Research and Field Experience in the European Union-Part I (3 cr.) Prerequisite: IB 105 or IB 201
IB 363 Research and Field Experience in the European Union-Part II (3 cr.) Prerequisite: IB 362

## Italian (IT)

IT 101 Elementary Italian I (3 cr.) This introduction to the Italian language focuses on development of reading, writing, aural comprehension and speaking ability in basic Italian. Italian culture and artistic achievements are presented. Students who have three or more years of high school Italian with grades of B or above may not take this course for credit. Every Year, Fall and Spring

IT 102 Elementary Italian II ( $\mathbf{3} \mathbf{c r}$ ) This course is a continuation of IT 101. Prerequisite: IT 101 or placement into IT 102. Every Year, Fall and Spring

IT 201 Intermediate Italian I ( $\mathbf{3} \mathbf{~ c r}$.) This course includes readings of selected short texts including raccontini (anecdotes), novelle (short stories) and a classic play. The emphasis is on building vocabulary and learning more complex grammatical constructions. Prerequisite: IT 102 or placement into IT 201. Every Year, Fall

IT 202 Intermediate Italian II ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i s ~ a ~}$ continuation of Italian 201. Every Year, Spring

## Japanese (JP)

JP 101 Elementary Japanese I (3 cr.) This introduction to Japanese as a spoken and written language includes intensive drills in the basic structures of the language. Elementary reading materials are used for vocabulary building, analytical exercises and discussion. Students learn about Japanese culture, customs and business practices. Basic Japanese scripts are introduced concurrently with other skills. Every Year, Fall

JP 102 Elementary Japanese II ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of JP 101. Prerequisite: JP 101; Every Year, Spring

## Journalism (JRN)

JRN 105 Electronic News Gathering (1 cr.) Students are trained in the fundamentals of shooting news using digital cameras and editing news stories using a computer-based non-linear editing system. The goal is to prepare broadcast students for courses such as JRN 291 (Reporting for Television) and JRN 311 (Advanced Reporting for Television) and to prepare print students for courses such as JRN 305 (Reporting for the Web). Every Year, All

JRN 160 Introduction to Media Writing (3 cr.) This course provides an introduction to reporting and writing in the media professions. Students learn how to gather information and write news stories, broadcast reports and press releases in an accurate, concise and interesting way. Required for all communications majors. Prerequisite: EN 101 or EN 102H; Every Year, All

JRN 260 Reporting for Print ( $\mathbf{3} \mathbf{c r}$ ) This course covers advanced reporting and writing for the print media. Students learn interviewing techniques, discover how to organize complicated material, and cover campus news. Meetings are held with media professionals. Prerequisite: JRN 160; Every Year, All

JRN 263 Broadcast News Writing ( 3 cr.) This course introduces students to the fundamentals of writing for the broadcast media in a professional environment. It provides a basic understanding of primary journalistic values such as accuracy and fairness as they apply to broadcast news. Prerequisite: JRN 160; Every Year, All

JRN 291 Reporting for Television (3 cr.) Students learn the principles of producing television news packages, which they edit using non-linear editing equipment (learned in JRN 105). All students cover news and sports primarily off campus. The focus is on writing, news judgment, content, interviewing, use of voice and doing stand-ups. Stories can air on the TV newscast that is broadcast live weekly. Prerequisite: JRN 263, JRN 105 or FVI 105; Every Year, All

JRN 305 Reporting for the Web ( $\mathbf{3} \mathbf{~ c r}$.) This course covers the principles and practices associated with researching and producing stories for non-linear, interactive media. Students are required to produce in-depth stories that include textual, audio, video and interactive elements such as polls. Prerequisites: JRN 260 or JRN 263; FVI 105 or JRN 105; Every Year, All

JRN 311 Advanced Reporting for Television (3 cr.) In this course, students build on the skills learned in JRN 291 to produce in-depth television stories. Pieces are longer to allow the student to explore issues in greater detail. Stories can air on the TV newscast that is broadcast live weekly. Prerequisite: JRN 291; Every Year, All

JRN 360 Public Affairs Reporting (3 cr.) Students cover news off the campus, on topics such as local government and education. Prerequisite: JRN 260 or JRN 263; Every Year, All

JRN 361 Sports Reporting (SPS 361) (3 cr.) This course introduces students to coverage of sports for the news media and includes writing game stories and sports profiles. Prerequisite: JRN 260 or JRN 263; Every Year, All

JRN 363 Computer-Assisted Reporting (3 cr.) This course presents an introduction to online news-gathering techniques and strategies and the use of spreadsheet and relational database software programs to enhance newsgathering efficiency and reporting accuracy. Students combine basics of news feature writing and computerassisted reporting skills to produce publishable news features and magazine articles. Prerequisite: JRN 260 or JRN 263; Every Year, All

JRN 365 Editing for Print (3 cr.) Students learn the basics of editing newspapers, magazines and online text, with emphasis on copyediting, headline writing, page composition and story packaging. Prerequisite: JRN 260; Every Year, All

## JRN 372 Entrepreneurial Media (The MIC Project)

( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ a d d r e s s e s ~ t h e ~ f i s c a l ~ a n d ~ d i s t r i b u t i o n ~}$ challenges faced by journalists and media professionals and empowers student teams to construct sustainable business models. Students experiment with the latest technology, exchange ideas with some of the industry's most prominent thinkers and developers, and create content or products for viable media business ventures. Open to all School of Communications students. Prerequisite: JRN 160; Every Year, Fall

JRN 395 Broadcast Performance ( 3 cr.) This course explores the variety of skills required to communicate effectively through broadcasting. Students learn and practice on-air presentation techniques for effective delivery and interpretation. The course focuses on voice, voice control and the phrasing interpretation of copy and body language. Study focuses on performance techniques, creativity, writing and analytical skills needed to communicate effectively. Open to broadcast and print students. Prerequisite: JRN 263; Every Year, Spring

JRN 450 Senior Seminar ( $\mathbf{3}$ cr.) This seminar entails an in-depth examination of issues and research perspectives in journalism. Seminar titles vary each term and may include topics such as ethics in journalism, diversity in the newsroom, and international journalism practices. Students should consult the School of Communications course bulletin for information about each semester's offerings. Every Year, All

JRN 470 Writing for Magazines (3 cr.) Students learn to write in-depth pieces suitable for publication in a quality magazine or as a special project for a newspaper or Internet site. Assignments are based on student proposals. Emphasis is placed on gathering information, conducting interviews and organizing the material into a coherent and interesting package. Prerequisite: JRN 260; Every Year, Fall

JRN 495 Advanced Reporting for Print (3 cr.) This course serves as the capstone for students in the print journalism sequence. It stresses individual enterprise reporting, in which students plan, report, write and produce stories suitable for print or multimedia that demonstrate their command of skills acquired during the course of study. Emphasis is placed on the role of the professional journalist as an ethical practitioner who represents and reflects the wider public in its economic, ethnic and racial diversity. Prerequisite: JRN 365; Every Year, All

JRN 496 Producing and Presenting the News ( 3 cr .) In this course, the capstone for the broadcast journalism sequence, students participate in a weekly live newscast in a team environment with students from other journalism and media production courses. They write and produce newscasts, using newsroom producing software, the Associated Press wire service and CNN feeds. The students anchor the news, weather and sports. Newscasts are recorded for critique and for student portfolios. Prerequisite: JRN 291; Every Year, All

Courses offered as needed<br>JRN 300 Special Topics in Journalism (3 cr.) Prerequisite: JRN 160<br>JRN 400 Special Topics in Journalism (1 cr.)

## Law (LW)

LW 121 Business Law and Society ( $\mathbf{3} \mathbf{c r}$.) The course helps students develop an understanding of the law as an evolving social institution rather than a static body of rules. Students read and interpret legal case reports as a means of keeping abreast of law that affects the business environment. Students learn the economic and social forces that have shaped and are now dictating the evolution of modern contract principles and the Uniform Commercial Code. Ethics and social responsibility are addressed throughout. Minimum grade for accounting majors C-. Every Year, Fall and Spring

## LW 122 The Law of Property, Sales and Negotiable

 Instruments (3 cr.) This course presents a study of the law of property, sales, commercial paper and bank transactions with particular reference to the Uniform Commercial Code along with the nature of personal property and bailments and some examination of the rules per-taining to estates and trusts. The course may include some consideration of credit, secured transactions and Federal Bankruptcy Law. Minimum grade for accounting majors C-. Prerequisite: LW 121; Every Year, Spring

## Legal Studies (LE)

LE 100 Orientation to Legal Studies ( 1 cr .) This course introduces students to the legal studies program and to important issues facing paralegals, attorneys and law office personnel. Issues to be covered include legal ethics and authorized practice, the practice of law, functions of the paralegal and the court system. The course must be taken during the student's freshman or sophomore year. This course is graded on a pass/fail basis. Every Year, Spring

LE 115 Criminal Law ( $\mathbf{3} \mathbf{~ c r}$.) This overview of the American system of criminal justice includes study of its various institutions, such as the criminal courts, police, prosecutors and defense attorneys, and jails and prisons. The Fourth Amendment (Search and Seizure) and the Fifth Amendment (Privilege Against Self-Incrimination) are studied. Also explored are schools of thought underlying criminal prosecution and correctional philosophy. Every Year, Fall and Spring

LE 208 Legal Research (4 cr.) This course introduces the student to the law library and computerized legal research databases. Students learn how to move from a fact situation through finding the sources of legal authority to applying the law to the specific facts. Prerequisite: LE 101; Every Year, Fall and Spring

LE 210 Legal Writing ( $\mathbf{3} \mathbf{~ c r}$.) In the development of legal writing skills, emphasis is on precision and clarity in writing, and on legal citation and format. Students draft letters and memoranda of law. Prerequisite: LE 208, EN 102; Every Year, Fall and Spring

LE 224 Sports Law (SPS 224) (3 cr.) Sports law is a growing and evolving area of law, affecting all those who play, officiate or watch sports. Legal issues involve athletes, athletic competition, athletic teams and leagues, fans and sports in general, on the student, amateur and professional levels. Students study the legal concepts surrounding sports, and learn to apply them to the issues that arise. Prerequisite: LE 101; Every Year, Spring

LE 225 Alternative Dispute Resolution (3 cr.) Students explore the various methods of dispute resolution that are available in the private sector, as alternatives to traditional litigation. Students learn to distinguish the various forms of dispute resolution, determine who participates in each form, how they participate and the advantages and disadvantages of each. Students role play in the vari-
ous methods to more fully understand the mechanisms of alternative dispute resolution. Prerequisite: LE 101; Every Year, Fall

LE 260 Trial Techniques ( $\mathbf{3} \mathbf{~ c r}$.) This course provides an overview of all aspects of a criminal and civil trial, and prepares students for advanced oral advocacy. Prerequisites: LE 101, EN 102; Every Other Year, Fall

LE 301 Civil Procedures I (3 cr.) This course presents the first half of a comprehensive study of the procedures in civil litigation from the beginning of a conflict to its final resolution, from both a theoretical and a practical approach. Preparation of documents necessary to a civil action is covered. LE 210 must be taken either before or at the same time as LE 301. Prerequisites: LE 101, LE 208; Every Year, Fall

LE 302 Civil Procedures II ( $\mathbf{3}$ cr.) This course presents the second half of a comprehensive study of the procedures in civil litigation from the beginning of a conflict to its final resolution, from both a theoretical and a practical approach. Preparation of documents necessary to a civil action is covered. Prerequisites: LE 301, LE 210; Every Year, Spring

LE 311 Administrative Agencies (3 cr.) The workings of, and procedures involved in dealing with, government agencies are introduced. Skills involved in being an advocate are covered. Prerequisites: two courses from LE; Every Other Year, Fall

LE 312 Family Law (3 cr.) This course presents a study of how law relates to the family as a functioning entity, examination of family law practice, and preparation of documents for dissolution of marriage. Prerequisites: two courses from LE; Every Other Year, Spring

## LE 315 Wills, Probate and Estate Administration (3 cr.)

 Legal concepts and statutes pertaining to wills and probate are examined, with special emphasis on preparation of forms necessary in administration of an estate.Prerequisites: two courses from LE; Every Other Year, Spring

## LE 320 Land Transfer and Closing Procedures ( 3 cr .)

 This course presents background for the sources of real estate law; land and its elements, the nature of property, the concept of ownership, and land titles and interest in land; procedures for conveying interest in land recording statutes; and searching titles. Emphasis is given to the preparation, coordination and completion of real estate closings. Prerequisites: two courses from LE; Every Year, FallLE 328 Employment Law (3 cr.) This course provides an overview of the legal relationship between employer and employee and a basic understanding of employmentrelated law and its impact on the employer/employee relationship. Students study both federal and state laws applicable to the employer/employee relationship. Areas covered include the basis for the employer/employee relationship, pre-employment concerns, legal aspects of the employment relationship, diversity and discrimination issues, discrimination actions, termination of the employer-employee relationship, ethical issues in employment law, and current issues such as telecommuting. Prerequisites: two courses from LE; Every Other Year, Fall

LE 330 Law of Business Entities (3 cr.) In this study of the different types of business entities, including corporations, partnerships and limited liability companies/ partnerships, emphasis is given to researching and drafting documents involved in the formation, maintenance and dissolution of business entities. Prerequisites: two courses from LE; Every Other Year, Fall

LE 340 The Constitution and the Courts ( 3 cr ) The United States Constitution and how it has been interpreted by the Supreme Court are studied in this course. The class examines Supreme Court decisions with focus on analysis and legal reasoning. Prerequisites: two courses from LE; Every Other Year, Spring

LE 345 Intellectual Property ( $\mathbf{3}$ cr.) This course introduces students to the different areas of intellectual property law, including patents, trademarks, trade secrets and copyright law. Intellectual property protects products created by writers, artists and inventors. Preparation of necessary documents is covered. Prerequisites: two courses from LE; Every Other Year, Spring

LE 350 Federal Indian Law and Policy ( 3 cr .) The relationship between the federal government and Native Americans and tribes is considered from a historical and practical perspective, along with current topics in Indian law. Practice applications before the two Connecticut tribal courts are covered as well. Prerequisites: two courses from LE; Every Third Year, Spring

LE 353 International Law ( $\mathbf{3} \mathbf{~ c r}$.) This course studies the nature, function, purpose and legitimacy of international law. Students consider the role and sources of modern international law, and analyze the practical application of legal principles in relevant case law. Topics include the sources of international law, national sovereignty, peacekeeping, international conflict resolution and tribunals, human rights and international economic and environmental law. Prerequisites: two courses from LE; Every Year, Fall

LE 360 Mediation (3 cr.) This course approaches mediation from the mediator's perspective. Students develop a sophisticated understanding of the legal and ethical aspects of mediation and learn to mediate disputes between parties in the context of civil, criminal and family disputes. Students also learn how to use mediation techniques to resolve disputes in non-legal settings. The course employs mediation exercises, role plays, simulations, self-critique and group discussions to demonstrate and evaluate effective communication skills, bargaining strategies, mediation styles and intervention techniques. Prerequisites: two courses from LE; Every Year, Spring

LE 370 Negotiation ( $\mathbf{3}$ cr.) This course provides students with a thorough understanding of the theory, strategy and practice of negotiation, both transactional and as a dispute resolution method. Students learn to negotiate to resolve problems and communicate effectively, within an ethical framework. The course uses negotiation strategy, exercises, role plays, group discussions and reflective writing to demonstrate and evaluate negotiation techniques and styles. Prerequisites: two courses from LE; Every Year, Fall

LE 480 Legal Internship Seminar I (4 cr.) Students are placed in a supervised legal internship in a law office, agency or other legal setting for 10 hours a week. During the weekly seminar, students discuss legal ethics and professional responsibility. They also complete a complex legal research and writing assignment incorporating principles from the core legal studies classes. Students discuss issues faced in a legal work environment. For majors only. Prerequisite: LE 302; Every Year, Fall

LE 481 Legal Internship Seminar II (4 cr.) Students continue in a supervised legal internship in a law office, agency or other legal setting for 10 hours a week. During the weekly seminar, students edit and revise their legal research and writing assignment. They discuss the issues faced in a legal work environment, focusing on their transition to a legal career. For majors only.
Prerequisite: LE 480; Every Year, Spring
Courses offered as needed
LE 200 Special Topics (3 cr.) Prerequisite: LE 101
LE 250 Gender and the Law (WS 250) (3 cr.) Prerequisite: LE 101 or WS 101
LE 300 Special Topics ( 3 cr .)
LE 310 Elder Law (GT 310) (3 cr.) Prerequisite: SO 263 or GT 263

## Management (MG)

MG 210 Essentials of Management and Organizational Behavior ( 3 cr .) This course provides an introduction to the functions and processes of management. It provides a foundation for managerial and entrepreneurial thinking. Emphasis is on the foundations of managing large organizations. Every Year, All

MG 211 Operations Management ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~}$ provides an introduction to the concepts and processes underlying operations management. The course emphasizes how quantitative models and methods can be used to enhance the decision-making process. Operations managers transform human, physical and technical resources into goods and services. Topics include operations systems design, capacity planning, job scheduling, inventory control, project planning, facilities location and layout, total quality management, and forecasting. Prerequisites: EC 271, MA 206, MA 275, MA 285 or PS 206; Every Year, All

MG 240 Software Applications for Business (3 cr.) The course instructs students in business applications of various widely used software packages including Word, Excel and dBase III + , along with the preparation of instructional materials detailing procedures for use of each type of software for everyday business needs. Prerequisite: MG 210; Every Year, All

## MG 256 Fundamentals of Business Plan Creation

 ( 3 cr .) This course utilizes inter-disciplinary teams to create a media-based business plans. Students will learn how to develop a strong business idea, learn about issues surrounding starting a communications based business, and learn the tools necessary to write and present a business plan to present to potential investors. Every Year, SpringMG 301 Managing Organizations in a Complex Environment ( 3 cr .) This course provides an interactive framework for managing the actions of individuals and groups in organizations and the environment in influencing organizational performance. Prerequisite: MG 210; Every Year, Spring

MG 304 Developing Managerial Competence (3 cr.) This course deals with the management of human behavior in organizations. Students have the opportunity to develop the skills needed to effectively manage people in organizations. Prerequisite: MG 210; Every Year, Fall

MG 315 Self Management ( $\mathbf{3} \mathbf{c r}$.) This course presents an intensive assessment of an individual's personal, psychological makeup so as to increase the ability to manage personal and interpersonal experiences. The premise for the course rests on the assumption that effective
management of others begins with management of oneself. Prerequisite: MG 210; Every Year, Spring

MG 320 Emotional Intelligence in the Workplace ( 3 cr.) This course provides the student with an understanding and appreciation of the role of emotional intelligence in everyday living and in particular, in the development of the leadership phenomenon. Topics include: 1) Why study emotional intelligence; 2) anatomy of emotions; 3) emotional intelligence and self-management; 4) the role of emotional intelligence in business and in leadership development; 5) education for emotional literacy; and 6) assessing one's own levels of emotional intelligence. Lectures, case studies, personal assessments and small group activities are the essential methodology for this course. Prerequisite: MG 210; Every Other Year, Fall

MG 321 Decision Making for Managers (3 cr.) This course focuses on improving managerial decision making and problem-solving skills through the development and use of qualitative and quantitative methods. Extensive use of Excel is emphasized. Prerequisites: MG 210, MG 211; Every Year, Spring

MG 340 Supply Chain Management ( $\mathbf{3}$ cr.) This course provides an introduction to the strategies, concepts, and techniques of supply chain management. Students examine a firm as a complete business operating within an integrated network of suppliers, customers, and logistics providers. Topics include the relationships between profitability, supplier management, quality, and logistics; the management of incoming supplies and services; storage and delivery of products and services to customers; and sustainability in supply chain management. Prerequisite: MG 211; Every Year, Fall

MG 341 Service Operations ( 3 cr.) This course examines the management of services, focusing on both the strategic and operational aspects of designing new services, assessing and improving service quality, improving the efficiency and effectiveness of service processes, and how new technologies can be integrated into service operations to help achieve these objectives. Prerequisite: MG 211; Every Year, Spring

MG 401 Project Management (3 cr.) The initiation, planning and execution of a project is one of the most demanding tasks required of managers. This course introduces students to the challenges of project management with exposure to critical behavioral issues involving intra- and inter-group collaboration. The course also examines project planning and control with topics such as scheduling (PERT/CPM), resource allocation and earned value management. Special emphasis is on the use of current P.M. software. Prerequisite: MG 211; Every Year, Fall

MG 402 Management Senior Seminar (3 cr.) This seminar is the capstone course for all management majors. Contemporary issues in strategy, human resource management, organizational behavior, quality management, corporate governance and social responsibility are emphasized. For seniors only. Prerequisites: MG 210, MG 211, MG 301, MG 321; Every Year, Spring

MG 488 Management Internship (3 cr.) This student-in-residence program includes work experience under the joint supervision of a sponsoring faculty and practicing manager or business owner. Approval of a sponsoring faculty member, the department chair and the assistant dean is required. For juniors and seniors. This course is graded on a pass/fail basis. Prerequisites: MG 301, MG 303, MG 321; Every Year, All

MG 490 Field Projects (3 cr.) Students individually or in teams work under faculty supervision on a problem or project presented by an actual entrepreneur of business. For juniors and seniors; faculty adviser and permission of chair required. Prerequisites: MG 301, MG 303, MG 321; Every Year, Spring

Courses offered as needed
MG 255 Human Resource Management (3 cr.) Prerequisite: MG 210
MG 260 Power and Politics of Leadership ( $\mathbf{3} \mathbf{~ c r . )}$ Prerequisite: MG 203
MG 311 Labor Relations (3 cr.) Prerequisites: LW 121, MG 203
MG 322 Computer-Aided Production Planning (3 cr.) Prerequisite: MG 321
MG 331 Quality Management ( 3 cr.) Prerequisite: MG 211
MG 350 Organizational Development (3 cr.) Prerequisite: MG 203
MG 370 Advanced Team Development ( 3 cr.) Prerequisite: MG 301
MG 390 Benchmarking: Concepts, Skills and Application (3 cr.) Prerequisites: MG 203, MG 321
MG 392 Business Ethics (3 cr.) Prerequisite: MG 210
MG 460 Concepts in Strategy and Policy (3 cr.)
Prerequisites: MG 210, MG 301, MG 303
MG 471 Business Plan Competition ( 3 cr .)
Prerequisites: MG 210, MK 201, AC 211, FIN 201

## Marketing (MK)

MK 201 Marketing Principles (3 cr.) This course surveys marketing from the decision-making point of view, with emphasis on the conceptual and analytical components of the subject, and a synthesis of new marketing concepts with economics, behavioral sciences and mathematics. Prerequisite: EC 111; Every Year, All

MK 210 Consumer Behavior (3 cr.) The central role of the consumer in initiating or determining the fate of the firm's marketing effort is emphasized. The course draws on theories from psychology, sociology, anthropology and economics to help understand and anticipate consumer behavior as individuals or groups. Current models of consumer behavior are surveyed. Prerequisite: MK 201; Every Year, All

MK 301 Internet Marketing ( $\mathbf{3} \mathbf{~ c r}$ ) This course explores the rapidly evolving world of Internet marketing and examines the strategies and tactics that firms can use to utilize the Internet as an effective marketing tool. Students discuss search engine marketing, social media tools, web site design and Internet advertising. The course also examines the role of the Internet as a channel of distribution Prerequisite: MK 201; Every Year, Spring

MK 312 Advertising (3 cr.) Current practices in advertising including strategy and planning, copy and layout, media selection and scheduling, and budgeting are examined. Advertising is considered from the inception of researched ideas and concepts through the completed presentation. Students gain experience in creating advertisements for the major media. Prerequisite: MK 201; Every Year, All

MK 315 Media Planning (3 cr.) This course considers strategic media planning and its role in advertising and marketing. Emphasis is on the strategic and creative selection, scheduling and evaluation of traditional and non-traditional media vehicles to effectively and efficiently deliver advertising messages to target audiences. Students examine the relative strengths of various media and scheduling options for advertising both goods and services, and learn tools and techniques used to analyze media opportunities (e.g., computerized allocation software and/or other modeling techniques). Students gain hands-on experience through development of a media plan. Prerequisite: MK 201; Every Year, Spring

MK 316 Advertising Design for New Media and Technology ( $\mathbf{3}$ cr.) This course focuses on the step-by-step development of high-impact advertising campaigns that are strategic, creative and integrated across media and communications channels. The class builds on the fundamental principles covered in previous classes, and combines this base of theory with practical hands-on experience and proven best practices for making great ads. Topics include brand design and development, competitive positioning, targeting, advertising strategy, composition and design, color theory, copywriting and strategies for delivering messages in a complex and evolving media/technology landscape. Special attention is given to the new media environment and engaging consumers online and through mobile devices. Prerequisite: MK 312 or MK 332; Every Year, Fall and Spring

MK 324 Business-To-Business Marketing (3 cr.) This course examines the development of marketing strategies of firms that market to other firms or organizations. Integrating characteristics that distinguish business markets from consumer markets throughout the semester, topics include unique aspects of selecting target markets and elements of the marketing mix. Cases, projects, articles and exercises stress the problems facing actual business marketing firms today. Prerequisite: MK 201; Every Year, Spring

MK 325 Interactive Digital Advertising (3 cr.) This course examines multiple digital media including TV, the Internet and mobile applications to analyze how the use of multimedia have changed the advertising and marketing strategies. The focus is on concepts, terminologies and theories that help students develop effective digital advertising strategies and build a strong foundation for their future in a digital driven media environment. Prerequisite: MK 201; Every Year, Spring

MK 332 Integrated Marketing Communications (3 cr.) This course focuses on theory, application and practice associated with the management of marketing communications activities. Students consider strategic implications of integrated communication, and examine promotional tools, such as advertising, special promotions, Internet/mobile, direct marketing, personal selling, public relations, publicity and display. Prerequisite: MK 201; Every Year, All

MK 333 Marketing Channels and Distribution (3 cr.) Students are introduced to design, evaluation and management of distribution channels. Topics include channel member roles and behavior; channel performance evaluation; and logistics (e.g., transportation, inventory, materials handling and information management). Prerequisite: MK 201; Every Year, Fall

MK 334 Product and Pricing Strategy (3 cr.) Strategic product planning and new product development within the context of marketing management for marketing new and mature products are examined. Students learn to integrate economic, financial, legal and marketing principles to analyze pricing decisions, and consider the behavioral implications of pricing, and review relationships among the components for the marketing mix. Prerequisite: MK 201; Every Year, Fall and Spring

MK 352 Retail Management ( $\mathbf{3} \mathbf{~ c r}$.) The major elements of retail management and merchandising are introduced. Topics covered are inventory planning, acquisition and control; pricing, sales volume and profit; promotional activities; and store management, including operations, as well as retail mathematics: markup, markdown, turnover, etc. Prerequisite: MK 201; Every Year, Spring

MK 355 Services Marketing (3 cr.) This course examines how marketing principles are applied to the management of service business, including health organizations. Topics include: definition of services, services as products, managing the service encounter, buyer behavior and customer relations, service quality, marketing and human resources management, service accessibility, pricing of services, promotion of services, and international marketing of services. Prerequisite: MK 201; Every Year, Spring

MK 370 Marketing Research ( 3 cr.) Students learn to understand and satisfy marketing managers' information needs: demand potential, competition, regulations and accepted procedures in relevant business/geographic areas. The course covers research design, quantitative and qualitative data collection, data analysis and implications of results. Written/oral reports are expected.
This methodological course assumes a basic understanding of marketing in a global environment. Prerequisites: EC 271, MK 201; Every Year, Fall and Spring

MK 383 Professional Selling and Sales Management ( 3 cr .) The study and application of skills required to sell products, services or ideas. Emphasis is on the development of an effective sales presentation focusing on the needs of the consumer or organization. The course stresses the importance of knowing the company and its products as well as the selling environment and customer. In addition, the issues involved in managing a sales force are addressed. These include sales planning and forecasting, selection, recruitment, training and compensation of salespeople and integration with other elements of the marketing mix. Prerequisite: MK 201; Every Year, Fall and Spring

MK 401 Seminar in Marketing Strategy (3 cr.) This capstone course is given from the point of view of top marketing executives, who are responsible for integrating marketing activities. Instructional methods such as case analyses, live cases, group projects and simulations may be used. Prerequisite: MK 370; Every Year, Fall and Spring

MK 450 Marketing History ( $\mathbf{3}$ cr.) This seminar examines the development of modern marketing in America from the mid-19th century through the 20th century. The course focuses on how pioneering entrepreneurs such as Kellogg, Sears, Heinz, Hershey and others created brands that became household names and in the process revolutionized marketing practice. Students discuss assigned readings, films and field trips. Research assignments and a term paper also need to be completed. Prerequisite: MK 201; Every Other Year, Fall

MK 488 Marketing Internship (3 cr.) This internship in marketing must be approved by the department chair and the dean in accordance with school regulations. Jun-
ior/senior status is required. This course is graded on a pass/fail basis. Prerequisite: MK 201; Every Year, All

MK 490 Seminar in Advertising Strategy (3 cr.) The course presents a study of issues involved in strategic planning of advertising and integrated communications programs for a product, service or institution. The course emphasizes the link between marketing and advertising strategy, and the integration of mass media communications within a promotional strategy. Elements of brand development strategy, evolving creative themes and media strategy will be covered as will the planning process itself. A mix of advertising, promotions and integrated communications case studies, simulations and term projects will be used as instructional methods. Prerequisite: MK 312 or MK 332; Every Year, Fall

MK 495 Biomedical Marketing Internship (3 cr.) This internship is required of biomedical marketing majors and must be done with a company or institution that is related to biomedical products or services. Prerequisite: MK 201; Every Year, All

MK 497 Advertising Competition ( $\mathbf{3} \mathbf{~ c r}$.) This course is designed for students who wish to participate in the national advertising competition administered by the American Advertising Federation (AAF). Areas covered include marketing situation analysis, media planning, public relations and creative development as part of a complete campaign for a well-known product or service. Prerequisite: MK 201; Every Year, Spring

Courses offered as needed<br>MK 340 Database Marketing (3 cr.) Prerequisite: MK 201

## Mathematics (MA)

MA 100 Basic Algebra ( $\mathbf{3}$ cr.) This course reviews basic arithmetic and algebraic skills and introduces mathematical methods to the entering student with little or no mathematics background, with the goal of providing sufficient skill to take course work requiring two years of college preparatory mathematics. Students are expected to participate in four hours of course work per week. MA 100 is for institutional credit and does not apply to graduation requirements. Students who have successfully completed MA 100 may challenge the MA 107 final examination. Note: Students may not withdraw from MA 100. Students who fail MA 100 the first time receive a grade of Unsatisfactory. If the student does not pass the second time, then a failure is recorded on the student's record. Every Year, All

MA 107 College Algebra (3 cr.) This review of fundamentals of algebra covers equations and inequalities as well as linear, quadratic, rational, exponential and loga-
rithmic functions. This class is designed for students who need to improve their algebraic skills to succeed in calculus. Prerequisite: Placement or MA 100. Every Year, All

MA 110 (UC-Quantitative Literacy Only) Contemporary Mathematics ( $\mathbf{3} \mathbf{~ c r}$.) This course introduces students to the study of mathematics as a discipline and also presents topics that are applicable to students' everyday lives. Topics include logic, probability and statistics and financial mathematics. The course also covers two topics from the following list: geometry, set theory, number theory, measurement, problem solving, mathematical systems, scientific applications, history of mathematics. Topics are chosen by the instructor. Students should check the mathematics requirements for their major before selecting their first course in mathematics. MA 110 is not designed to be a prerequisite for any calculus course. Every Year, Fall and Spring

MA 118 (UC-Quantitative Literacy Only) Applied Calculus ( $\mathbf{3} \mathbf{~ c r}$.) Students are introduced to functions and limits, fundamental rules of differentiation and integration of elementary functions, and applications in business and life sciences. A graphing calculator is required; the TI-83 is recommended. Prerequisite: Placement or MA 107. Every Year, All

## MA 140 (UC-Quantitative Literacy or Elective) Pre-

 Calculus ( $\mathbf{3} \mathrm{cr}$.) This course concentrates on topics that students need to understand profoundly to succeed in calculus. Students learn about the following topics: functions and their graphs, exponents and logarithms and trigonometry. There is a focus on basic concepts and visualization of problems. The material has many reallife applications. Use of a TI-83 or TI-84 calculator is required. Primary emphasis is on developing the following New Synthesis proficiencies: quantitative reasoning and critical thinking and reasoning. Prerequisite: A math placement level of 3 or above, or successful completion of MA 107. Every Year, Fall and SpringMA 141 (UC-Quantitative Literacy or Elective) Calculus of a Single Variable I ( $\mathbf{3} \mathbf{~ c r}$.) This course covers functions, graphs, limits, continuity, derivatives, applications of derivatives, antiderivatives and definite integral, as well as the Fundamental Theorem of Calculus. This course significantly advances the following Essential Learning Outcomes: quantitative reasoning, critical thinking and reasoning. A TI-83+ graphing calculator (or the equivalent) is required. Prerequisite: Grade of C or better in MA 140 or placement. Every Year, All

MA 142 (UC-Quantitative Literacy or Elective) Calculus of a Single Variable II (3 cr.) Students study techniques of integration, numerical integration, applications of the definite integral, improper integrals, differential equations and infinite series. This course significantly
advances the Essential Learning Outcomes: quantitative reasoning, critical thinking and reasoning. A graphing calculator is required; the TI-83 or TI-84 is recommended. Prerequisite: Minimum grade of C- in MA 141 or placement. Every Year, Fall and Spring

MA 205 (UC-Quantitative Literacy Only) Introduction to Discrete Mathematics (3 cr.) This course introduces students to basic concepts and structures of discrete mathematics. Topics covered include propositional and predicate logic, sets and set operations, functions and function machines, binary relations, graphs and trees, and basic number theory. Applications include computer science, biology, social sciences, law and the physical sciences. Prerequisite: MA 140 or MA 141; Every Year, All

MA 206 (UC-Quantitative Literacy Only) Statistics for the Behavioral Sciences ( $\mathbf{3} \mathbf{~ c r}$.) This course presents a study of statistical procedures pertinent to the work of the social and behavioral scientist. Descriptive procedures, confidence intervals, hypothesis testing, regression and correlation, analysis of variance, non-parametric techniques are introduced. Every Year, All

MA 226 (UC-Quantitative Literacy Only) Baseball and Statistics (SPS 226) (3 cr.) This course covers SABRmetrics: the study of standard statistical topics using data derived from baseball records, which, for many students, is more easily understood and more interesting than data from the business or science world. The course looks at both descriptive and inferential statistics along with probability. Descriptive statistics covers measures of central tendency, tables and graphs, the normal and binomial distributions. Inferential statistics explores sampling, confidence intervals, hypothesis testing, chi-square testing, and regression and correlation analysis. Students must have a satisfactory score on the placement test and possess a basic knowledge of baseball. Every Year, All

MA 229 (UC-Quantitative Literacy Only) Linear Algebra ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ c o v e r s ~ v e c t o r ~ s p a c e s , ~ s y s t e m s ~ o f ~}$ linear equations, linear transformations, determinants and matrix algebra. Every Year, Spring

MA 241 Calculus of Several Variables (3 cr.) Students are introduced to differential calculus of real-valued and vector-valued functions on $n$-space. Prerequisite: Minimum grade of C- in MA 142. Prerequisites: MA 142, MA 229; Every Year, Fall

MA 242 Integral Calculus And Differential Equations ( 3 cr ) This course covers multiple integrals, line and surface integrals and introduces differential equations of order one. Prerequisite: MA 241; Every Year, Spring

MA 275 (UC-Quantitative Literacy Only) Biostatistics ( 3 cr .) Students are introduced to the application of sta-
tistical techniques to the biological and health sciences with emphasis on probability laws, sampling and parameter estimation, central limit theorem, test of hypothesis, correlation, regression and analysis of variance. Every Year, All

MA 285 Applied Statistics (3 cr.) This introductory statistics course is intended primarily for students majoring in mathematics, especially those who plan to become high school mathematics teachers or actuaries. Emphasis is on using statistics to answer questions in the physical and social sciences. Topics include: descriptive statistics, probability, point and interval estimation, hypothesis testing, correlation and regression, analysis of variance, chi-square tests, and non-parametric methods. Students also learn about time series analysis and forecastingtopics that are important for actuaries. Students are required to analyze real data sets using EXCEL, SAS, SPSS or similar computer programs. Prerequisite: MA 141; Every Year, Spring

MA 305 Applied Discrete Mathematics (3 cr.) Students are introduced to basic structures of discrete mathematics, sets, combinatorics, relations and digraphs, trees, Boolean algebra and logic, and their applications to computer science. Prerequisite: MA 229; Every Year, Fall

MA 318 Cryptography (CSC 318) (3 cr.) Students study methods of transmitting information securely in the face of a malicious adversary deliberately trying to read or alter it. Participants also discuss various possible attacks on these communications. Students learn about classical private-key systems, the Data Encryption Standard (DES), the RSA public-key algorithm, discrete logarithms, hash functions and digital signatures. Additional topics may include the Advanced Encryption Standard (AES), digital cash, games, zero-knowledge techniques and information theory, as well as topics chosen by the students together with the instructor for presentations. Prerequisite: MA 229, CSC 215 or ISM 301; Every Other Year, Spring

MA 321 Abstract Algebra ( $\mathbf{3} \mathbf{c r}$.) This course presents a study of topics selected from groups, normal groups, rings, ideas, integral domains, fields, polynominal-rings and isomorphism theorems. Prerequisites: MA 229, MA 305; Every Year, Spring

MA 341 Advanced Calculus I ( $\mathbf{3} \mathbf{~ c r . ) ~ T h e ~ c o n c e p t s ~ o f ~}$ limit, continuity, differentiation and Riemann integration are studied in depth. Also considered are sequences and series, improper integrals, and Riemann-Stieltjes Integral. Prerequisites: MA 142, MA 305; Every Year, Fall

MA 361 Numerical Analysis (CSC 361) ( 3 cr.) This course covers selected techniques for obtaining numerical values of functions, solving linear and nonlinear
equations, interpolation, numerical differentiation and integration, error analysis and numerical stability. Prerequisites: MA 142, MA 229; Every Other Year, Fall

MA 365 Ordinary Differential Equations (3 cr.) Students are introduced to standard methods for solving ordinary differential equations, including Laplace transforms as well as singular solutions, series solutions, and the system of linear differential equations. Existence and uniqueness theorems also are introduced, as are geometrical interpretation and applications. Prerequisite:
MA 142; Every Other Year, Spring
MA 370 Number Theory ( $\mathbf{3} \mathbf{c r}$.) Topics include representation of integers, primes, the Fundamental Theorem of Arithmetic, divisibility, modular arithmetic, Fermat's Little Theorem and Euler's Theorem, perfect numbers, and Diophantine equations. Additional topics may include quadratic residues, sums of squares, and Fermat's Last Theorem. Prerequisite: one course from MA level 300; Every Other Year, Spring

MA 371 Mathematical Statistics and Probability I ( 3 cr .) This course covers foundations of probability; selected probability distributions; moments; collections, classification, analysis, interpretation and presentation of empirical frequency distributions; statistical inference; sampling theory; applications. Prerequisites: MA 142, MA 229; Every Other Year, Fall

## MA 372 Mathematical Statistics and Probability II

 ( 3 cr .) Students are introduced to general principles for testing hypotheses and for estimation; small sample distributions; regression and correlation; nonparametric techniques; design of experiments and analysis of variance; and other methods. Prerequisite: MA 371; Every Other Year, SpringMA 378 Mathematical Modeling ( $\mathbf{3} \mathbf{~ c r}$.) Students develop mathematical models for problems in biology, environment, health sciences and politics. Prerequisites: MA 141, MA 229; Every Other Year, Fall

MA 490 Mathematics Senior Seminar (3 cr.) Students work on a senior-level project, culminating in a written and oral report. For senior mathematics majors. Every Year, Spring

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## Media Studies (MSS)

## MSS 101 Introduction to Media Communications

 (3 cr.) This course introduces students to the structure, function and social impact of the communications media. Individual media industries are examined in terms of their historical development and the ways they inform, entertain and influence media consumers. The course also surveys issues related to media ownership, regulation, ethics, diversity, globalization and social media use. Every Year, Fall and SpringMSS 119 Sign Language Workshop (1 cr.) The course presents an introduction to basic sign language, its basic vocabulary, sentence structure and grammar. Students gain practice in reading and execution of signs. Every Year

MSS 150 (UC) Speech as Communication ( 3 cr.) MSS 150 presents fundamental principles and methods of selecting, analyzing, evaluating, organizing and developing speech material. Primary emphasis is on developing the following New Synthesis proficiencies: Oral Communication and Social Intelligence. Students deliver, listen to and critically analyze extemporaneous speeches. Every Year, Fall and Spring

MSS 220 (UC) U.S. Media History ( $\mathbf{3}$ cr.) This course is a survey of media history. Students observe how media industries have developed and changed over time and study the relationships between various industries. The historical, political, economic and social contexts in which media have operated also are discussed. Particular attention is given to major events in media history, and how those events have shaped the contemporary media. Finally, students are introduced to archival research and have an opportunity to examine historical artifacts, including photographs, newspapers, magazines, books, newsreels, movies, records, tapes, etc. Prerequisite: EN 102; Every Year, All

MSS 231 Media and Society ( $\mathbf{3}$ cr.) This course examines the role of media in contemporary society. The objectives for this course are twofold: to foster an understanding of the social context within which media professionals work and to provide an environment in which students develop analytical skills required for effective and ethical participation in our media-saturated culture as citizens and potential media professionals. Students examine how different cultural, political and economic structures create constraints and leave open the possibilities for media practitioners, users and audiences. Prerequisites: MSS 101, JRN 160; Every Year, Spring

MSS 307 The Holocaust (HS 307) (3 cr.) Using historical texts, literature and film, this survey covers the systematic destruction of 10 million human beings at the
hands of the Third Reich. Prerequisite: one group: one course from HS level 200; Every Year, Fall

MSS 311 Diversity in the Media (WS 311) ( 3 cr.) This course examines the role of media in the construction of social categories such as gender, race, class and sexual orientation. Students learn about the media as one of a number of social institutions including religion, education and family, which influence our understanding of cultural difference. The course presents a variety of perspectives that address diversity in relation to both print and electronic media, emphasizing popular culture. Media diversity issues are analyzed in relation to ownership, representation, audience reception, and the media workforce. Junior standing required. Prerequisites: WS 101 or MSS 101; JRN 160, MSS 220; Every Other Year

MSS 332 Research Methods ( $\mathbf{3} \mathrm{cr}$.) The course introduces students to a variety of media research methods through readings and hands-on exercises. Goals include helping students become knowledgeable and critical readers of social research produced in both applied (for example, public opinion polls, marketing research) and academic settings, and teaching students fundamental aspects of conducting media research and leading-edge strategies for effectively communicating research findings. Topics include participant observation, interviewing, focus groups, content analysis, survey research, statistics, social media tracking and research ethics. Junior status required. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year, Fall and Spring

MSS 340 Communications Law and Policy (3 cr.) This course helps students to develop an awareness and understanding of laws, regulations and professional standards of practice that apply to the work of communications practitioners. Attention is given to First Amendment guarantees, libel, privacy, journalist's privilege, copyright, media and advertising regulation. Selected cases are highlighted as examples of opinions handed down by state and federal courts. Junior status in communications or permission of instructor required. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year, Fall and Spring

MSS 345 Media Users and Audiences (WS 345) (3 cr.) This course examines popular, institutional and academic perspectives on media users and audiences in the U.S. and abroad. Central topics include how people choose and interpret media content, how marketers and media producers perceive audiences and how social media use blurs boundaries between consumers and producers. The course also considers popular assumptions about media effects on audiences and includes an in-depth analysis of fan cultures. Junior status required. Prerequisites: MSS 101 or WS 101; JRN 160, MSS 220; Every Other Year, Fall

MSS 346 Global Communication ( $\mathbf{3} \mathbf{c r}$.) The course analyzes the roles information media and popular culture play in modern debates about political power, global economy and cultural identity. The relative influences of different communication technologies in relationships among global, transnational and local cultures also are examined. Prerequisites: MSS 101, JRN 160, MSS 220; Every Other Year

MSS 348 Song and Dance ( $\mathbf{3} \mathrm{cr}$.) Music plays a major role in all media where sound is a component. This course explores the nature of music and elements such as rhythm, harmony, resonance and entrainment. Through a series of texts and films, participants seek to understand the power music brings to the world of communication. Using a nontechnical approach, they examine principles that underlie music's status as the universal language and enable it to speak to the mind, heart and soul of humanity. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year

MSS 420 Sports, Media and Society (SPS 420) (3 cr.) This course examines the social, political, economic and historical significance of the intersection of sports, media and society. Participants examine such questions as: What role have sports played in shaping cultures throughout history? What is the relationship between sports and media? How do sports, through the media, influence U.S. culture today? What is the role of sports media professionals in U.S. culture? This course is specifically designed for students interested in sports journalism, production and/or promotion. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year, Spring

MSS 450 Senior Seminar ( 3 cr.) This seminar includes an in-depth examination of issues and research perspectives in media studies. Topics vary each term, focusing on the different media and current literature in the field. Senior status is required. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year, Fall and Spring

MSS 495 Media Influence (3 cr.) This overview of contemporary approaches to media analysis examines media production, content and audiences with attention to political, economic and cultural contexts. It also focuses on a critical examination and interpretation of media content and its social implications. This course helps students to develop a greater understanding of the theories that guide media research by reading the germinal texts in media theory, analyzing the development of various research traditions and assessing the future of media studies research. Senior status required. Prerequisite:
MSS 231; Every Year, Spring
Courses offered as needed
MSS 200 Special Topics (3 cr.)
MSS 300 Special Topics (3 cr.)

# MSS 305 The Vietnam Era: Images and Reality <br> (HS 305) (3 cr.) Prerequisite: HS 111, HS 112, HS 131, HS 132 or MSS 101 <br> MSS 320 History and Social Impacts of Communication Technologies (3 cr.) <br> Prerequisites: MSS 101, JRN 160, MSS 220 <br> MSS 344 Popular Culture and the Media ( 3 cr.) <br> Prerequisites: MSS 101, JRN 160, MSS 220 <br> MSS 349 Political Communication (PO 348) ( 3 cr.) <br> Prerequisites: MSS 101, JRN 160, MSS 220 <br> MSS 350 Issues in Media Studies ( $\mathbf{3}$ cr.) <br> Prerequisites: MSS 101, JRN 160, MSS 220 <br> MSS 400 Special Topics ( 3 cr .) <br> MSS 491 Research Project ( 3 cr.) Prerequisites: <br> MSS 331, MSS 332 

## Music (MU)

MU 130 (UC) Understanding Music (3 cr.) Students study elements of musical form and style in an effort to discover how music works. This course investigates the most important figures from the history of Western music as well as some world music and contemporary composers. Every Year, All

MU 140 Applied Guitar (1 cr.) Students study the guitar as an orchestral instrument. The plectrum (use of a pick) style of playing is emphasized. The students follow a systematic method for gradual and technical development. Students attend an arranged weekly lesson during the scheduled time for the class, and are expected to practice 30 minutes each day. Every Year, All

MU 190 Quinnipiac University Singers (1 cr.) This workshop in music, which must be taken for credit, is devoted to the study, singing and presentation of choral music from a variety of periods. The course focuses on specific vocal and ensemble techniques. Every Year, All

MU 194 Jazz Ensemble (1 cr.) Students explore and perform literature written for the big and small ensemble. A wide variety of styles, composers and arrangers are covered. Every Year, All

MU 211 (UC) History of Jazz ( $\mathbf{3} \mathbf{~ c r}$.) This course covers the origins and history of the jazz idiom from its early beginning through present avant-garde forms. Basic jazz literature is surveyed with style analysis of important soloists, small jazz groups and large ensembles. Every Year, All

MU 211H (UC) Honors History of Jazz (3 cr.) This course covers the origins and history of the jazz idiom from its early beginning through present avant-garde forms. Basic jazz literature is surveyed with style analysis
of important soloists, small jazz groups and large ensembles. Every Year, All

MU 213 (UC) Music of the 20th Century (3 cr.) This course examines the many transformations that have taken place in art music from the late post-romantic era up to the present time. The course presents a diverse spectrum of musical styles, and explores how popular forms, world music, and changes in society have impacted musical culture here and abroad. Prerequisite: MU 130; Every Year, Spring

MU 230 (UC) Music Theory I ( $\mathbf{3} \mathbf{~ c r}$.) This course is specifically designed to give the student a solid and practical basis for appreciation or participation in musical experience. Emphasis is placed on development in three areas: 1) music theory (rhythm, melody, harmony, modes, scales, key signatures, intervals, etc.); 2) its direct application through exercises in dictation; and 3) sight reading. Prerequisite: MU 130; Every Year, Fall

MU 240 Applied Guitar II (2 cr.) Students develop an appreciation for the vast library of music for the guitar. Students learn both the plectrum style of play (use of a pick) and the classical style of play (finger style). The course follows a systematic method for gradual and technical development. Class time includes guitar ensemble playing along with individual lessons. Students are expected to practice 45 minutes each day. Prerequisite: MU 140 or MU 230; Every Year, Fall

MU 330 Music Theory II ( $\mathbf{3}$ cr.) This course studies the range, timbre, transposition and uses of various instruments in consort. Fundamental techniques of arranging, vocal and instrumental are considered. Prerequisite: MU 230; Every Year, Spring

MU 340 Applied Guitar III ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of MU 240. Students practice the plectrum and classical styles of playing and participate in individual lessons and guitar ensemble playing as they increase their knowledge of the library of music for the guitar with an emphasis on classical and jazz guitar music. Each student must write a piece demonstrating the elements of musical composition and play that composition or another piece at a recital. Prerequisite: MU 240; Every Year, Spring

## Courses offered as needed

MU 191 Hamden Symphony Orchestra at Quinnipiac (1 cr.)
MU 200 Special Topics (1 cr.)
MU 210 History of Musical Drama: From Opera to Broadway (3 cr.) Prerequisite: MU 130

## Nursing (NUR)

NUR 300 Core Concepts in Nursing ( $\mathbf{3}$ cr.) This course introduces students to core concepts in nursing, and focuses on assessment and nursing interventions to support and protect health. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Fall

## NUR 302 Nursing Science and Information Literacy

 ( 3 cr .) This course examines historical and contemporary nursing science. Students are introduced to patterns of knowing, clinical reasoning, and select disciplinary and interdisciplinary concepts and theories useful in nursing practice. This course also focuses on information literacy and information management in the delivery of quality patient care. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, FallNUR 304 Health Promotion and Wellness ( 3 cr .) This course focuses on health promotion, wellness, and disease and injury prevention across the lifespan. Individual prevention strategies and health interventions are explored. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Fall

NUR 306 Health Assessment ( $\mathbf{3}$ cr.) This course focuses on health assessment of individuals across the lifespan. Students are introduced to a holistic approach to assessment taking into consideration bio-psycho-social-spiritual, environmental and cultural aspects. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Fall

NUR 307 Core Nursing Practicum ( 2 cr.) This clinical practicum is taken concurrently with NUR 300, 302, 304, 306 and 330L. Students participate in 84 hours of supervised clinical practice in a variety of health care settings. Every Year, Fall

NUR 322 Care of Women, Children and Families ( 4 cr .) This course examines concepts of nursing management for women, children and families, and emphasizes health promotion, wellness and the illness states of the child bearing and child-rearing family. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Spring

NUR 323 Women, Children and Families Practicum ( 2 cr .) This clinical practicum is taken concurrently with

NUR 322. Students participate in 84 hours of supervised clinical practice in a variety of health care settings. Every Year, Spring

NUR 324 Care of Adults with Complex Health Needs I ( 4 cr .) This course examines concepts of nursing management for adults with complex health care needs. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Spring

NUR 325 Adult Care Practicum I (2 cr.) This clinical practicum is taken concurrently with NUR 324. Students participate in 84 hours of supervised clinical practice in a variety of health care settings. Every Year, Spring

## NUR 326 Pathophysiology and Pharmacotherapy I

( 2 cr .) This course integrates pathophysiology and pharmacotherapy relevant to concurrent junior spring semester nursing courses. Students are introduced to medications used for health maintenance, and the treatment of illness. Legal, ethical, and regulatory issues are also examined. Every Year, Spring

NUR 330L Holistic Nursing Integration Lab I ( 2 cr.) This integrated campus laboratory experience provides the opportunity to develop nursing knowledge and attitudes, and to practice skills relevant to concurrent junior fall semester nursing courses. Students participate in learning modalities such as guided practice, clinical simulation, and problem-based learning activities to develop clinical reasoning. 5 hours per week, 70 hours per semester. Every Year, Fall

NUR 340L Holistic Nursing Integration Lab II (2 cr.) This integrated campus laboratory experience provides the opportunity to develop nursing knowledge and attitudes, and to practice skills relevant to concurrent junior spring semester nursing courses. Students participate in learning modalities such as guided practice, clinical simulation, and problem-based learning activities to develop clinical reasoning. 5 hours per week, 70 hours per semester. Every Year, Spring

NUR 360 History of Health Care and Modern Nursing ( 3 cr .) This elective course explores the history of health care and modern nursing from ancient times to current practices in the U.S. Students critically examine the social, political and economic forces that have influenced the development of health care and modern nursing. Elective. Every Year, Fall

NUR 362 Nutrition in Health and Illness ( $\mathbf{3}$ cr.) This elective course focuses on the fundamentals of human nutrition in relation to disease prevention and treatment. The course applies practical nutrition concepts as vital
members of a health care team to achieve optimum patient care. Emphasis is placed on the science of nutrition, nutrition throughout the life cycle, and clinical nutrition. Elective. Open to health science, non-nursing majors. Every Year, All

## NUR 364 Complementary and Alternative Therapies

 ( 3 cr ) This elective course examines complementary and alternative therapies in current use. Emphasis is placed on the theories, applications, validity and efficacy of a wide range of treatment modalities. Elective. Open to health science, non-nursing majors. Every Year, Spring
## NUR 366 Communication Skills in Clinical Practice

 ( 3 cr .) This elective course focuses on communication skills to interact more effectively with clients across the lifespan. Emphasis is placed on understanding and practicing various therapeutic methods of communication. Topics include family dynamics; life stages of development; and establishing healthy provider-client relationships and boundaries. Elective. Open to health science, non-nursing majors. Every Year, SpringNUR 367 Summer Clinical Internship (2 cr.) This elective course is designed for nursing students who have completed junior year nursing courses. Students must apply for this competitive 10 -week summer internship. The application period is mid-spring semester of junior year. Accepted interns will receive a modest salary and a two-credit tuition scholarship. Elective. Every Year, Summer

## NUR 390 Special Topics in Nursing ( 3 cr.)

NUR 400 Psychiatric-Mental Health Nursing ( 3 cr .) This course examines concepts of nursing management for individuals with psychiatric-mental health needs across the lifespan. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Spring and Summer

## NUR 401 Psychiatric-Mental Health Practicum (2 cr.)

 This clinical practicum is taken concurrently with NUR 400. Students participate in 84 hours of supervised clinical practice in a variety of healthcare settings. Every Year, Spring and Summer
## NUR 408 Research and Evidence-Based Nursing

Practice (2 cr.) This course focuses on research related knowledge, attitudes, and skills necessary for evidence based decision making in clinical practice. Students learn the basic elements of research, and further develop scientific literacy, and enhance information fluency. Every Year, Fall and Summer

NUR 424 Care of Adults with Complex Health Needs II (3 cr.) This course examines concepts of nursing management for adults with complex, high acuity healthcare needs requiring sophisticated patient care technologies. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Fall and Summer

NUR 425 Adult Care Practicum II (2 cr.) This clinical practicum is taken concurrently with NUR 424. Students participate in 84 hours of supervised clinical practice in a variety of health care settings. Every Year, Fall and Summer

## NUR 426 Pathophysiology and Pharmacotherapy II

 ( 2 cr .) This course integrates pathophysiology and pharmacotherapy relevant to concurrent senior fall semester nursing courses. Students are introduced to medications used for health maintenance, and the treatment of illness. Legal, ethical, and regulatory issues are also examined. Every Year, Fall
## NUR 428 Community and Public Health Nursing

 ( 3 cr .) This course focuses on concepts of community and public health nursing. Emphasis is on secondary and tertiary prevention and nursing management for individuals with health problems in community settings. The delivery of safe, evidence based, holistic, patient centered care is emphasized. Knowledge, attitude, and skill acquisition opportunities are provided in campus lab and applied in clinical practicum. Every Year, Spring and Summer
## NUR 429 Community and Public Health Nursing

 Practicum ( $\mathbf{2}$ cr.) This clinical practicum is taken concurrently with NUR 428. Students participate in 84 hours of supervised clinical practice in a variety of healthcare settings. Every Year, Spring and Summer
## NUR 430L Holistic Nursing Integration Lab III (2 cr.)

 This integrated campus laboratory experience provides the opportunity to develop nursing knowledge and attitudes, and to practice skills relevant to concurrent senior fall or summer semester nursing courses. Students participate in learning modalities such as guided practice, clinical simulation, and problem-based learning to develop clinical reasoning. ( 5 hours per week, 70 hours per semester). Every Year, Fall and Summer
## NUR 432 Contemporary Issues and Roles in Nursing

 Practice (3 cr.) This course analyzes trends and issues in contemporary health care and their effect on the consumer, the nursing profession, and society. It incorporates social intelligence, diversity awareness, creativity and sensitivity required for leadership roles and management functions in dynamic health care environments. Knowledge, attitude, and skill opportunities are provided in campus lab and applied in 84 hours of supervisedclinical practice in a variety of health care settings. Every Year, Spring and Summer

NUR 433 Capstone Practicum ( 2 cr.) This capstone practicum facilitates the transition from nursing student to professional nurse. Synthesis of knowledge from all coursework is integrated into the delivery of safe, evidence based, holistic, patient centered care. Students participate in 84 hours of supervised clinical practice in a variety of healthcare settings. Every Year, Spring and Summer

NUR 434L Capstone Seminar Lab (1 cr.) This capstone seminar provides the opportunity for students working in small faculty-mentored groups to complete a capstone project that demonstrates synthesis of disciplinary knowledge, scientific and information literacy. Students participate in 35 hours of seminar lab in which they produce, and disseminate evidence-based practice (EBP) projects. Every Year, Spring and Summer

## NUR 440L Holistic Nursing Integration Lab IV (2 cr.)

 This integrated campus laboratory experience provides the opportunity to develop nursing knowledge and attitudes, and to practice skills relevant to concurrent senior spring or summer semester nursing courses. Students participate in learning modalities such as guided practice, clinical simulation, and problem-based learning activities to develop clinical reasoning. Students also prepare for the nursing licensure examination (NCLEX$\mathrm{RN}^{\top}$ ) with emphasis on content review, and computer simulated test taking using web-based technology. (5 hours per week, 70 hours per semester) Every Year, Fall and Summer
## NUR 490 Special Topics in Nursing (3 cr.)

Courses offered as needed
NUR 370 Academic Improvement Strategies (1 cr.) NUR 461 Community Health Internship (3 cr.)

## Occupational Therapy (OT)

OT 111 Fundamentals of Occupational Therapy ( 1 cr .)
This course provides the student with a basic knowledge of the fundamentals of occupational therapy practice. Topics include defining occupational therapy, historical development of the profession, introduction to current and emerging practice arenas, and application of professional terminology. Students complete a self-study in medical terminology. This course also is offered online during winter intercession. Every Year, Fall and Summer

OT 112 Occupation-Based Activity (1 cr.) This course introduces students to therapeutic observation. Lecture and learning experiences allow for the development of observation skills across the life span, and in all areas of
occupation. Interpretation of observations and relationship of observation to occupational performance are emphasized. Students complete a self-study in medical terminology. Every Year, Spring and Summer

OT 210 Therapeutic Use of Self (SL: Service Learning) ( 2 cr .) This course develops the skills surrounding the use of self as a therapeutic entity. These skills are necessary in both dyadic as well as group relationships and are cornerstones of the profession. The integration of service learning in community settings with people with disabilities allows students to practice their client-centered communication skills. Every Year, Fall and Summer

OT 212 Group Leadership (SL: Service Learning)
( 2 cr .) This course involves lecture and experiential skills in the use of groups in occupational therapy intervention. Theory of groups, and specific group leadership training and practice are utilized. Prerequisites: OT 111, OT 112, OT 210; Every Year, Spring and Summer

OT 315 Principles of Anatomy ( $\mathbf{3} \mathbf{c r}$ ) This course presents a comprehensive study of structure and movement within the human body including emphasis on functional, muscular activity. This foundation provides the student with knowledge of body functions related to human occupation. Every Year, Fall

OT 315L Principles of Anatomy Lab (1 cr.) This lab presents a comprehensive study of the structure and movement within the human body through cadaver and computer simulation techniques. (2 lab hrs.) Every Year, Fall

OT 315R Principles of Anatomy: Range of Motion Lab ( 0 cr .) This course includes two required laboratories: a cadaver lab at Yale and a range of motion lab on the North Haven Campus. The lab grade is a combined grade of both components. The range of motion component focuses on the biomechanical frame of reference allowing students to study normal human joint structure and function. This is the foundation for understanding clinical assessment procedure and simulated patient interaction. Emphasis is placed on application of lecture material to lab content, simulated client and therapist positioning and accuracy of joint measurement. Testing includes practical examinations including professional behavior. For OT majors only. Every Year, Fall

OT 316 Kinesiology (3 cr.) Kinesiology addresses normal movement of the trunk, upper and lower extremities. This course builds on the knowledge of anatomy and physics as it relates to the human body force systems and functioning in everyday activities. Key components of this class include the understanding of linear and parallel force systems, torque and motion analysis in human movement and other performance skills. Every Year, Spring

OT 316L Kinesiology Lab (1 cr.) This lab experientially examines the concepts of kinesiology presented in lecture. Students have the opportunity to practically apply biomechanical theory to normal functioning of the human body range of motion muscle testing, daily activity, design concepts and motion analysis. (2 lab hrs.) Every Year, Spring

OT 325 Principles Human Development and Occupation ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ e x p l o r e s ~ n o r m a l ~ d e v e l o p m e n t ~ a n d ~}$ its impact on age appropriate occupations. The age span is from conception through early adulthood. The course provides a foundation for evaluation and intervention in human occupation. Every Year, Fall

## OT 326 Principles of Human Development/Older

 Adults (3 cr.) This course builds on the developmental concepts from OT 325 to explore normal development and its impact on age appropriate occupations. The age span is from early to late adulthood. The course provides a foundation for evaluation and intervention in human occupation as well as a foundation in performance patterns, skills and context. Prerequisites: OT 325; Every Year, SpringOT 335 Functional Neuroanatomy ( $\mathbf{3} \mathbf{~ c r}$.) This course provides a comprehensive study of neuroanatomy including the structures, functions and physiology of neural systems key to normal human health and function. The course provides a strong foundation for future study on neural substrates of health conditions and occupational performance. Every Year, Fall

OT 336 Functional Neurobehavior ( 3 cr .) This course builds on functional neuroanatomy as it examines the interrelationships of neuroanatomical structures, subsystems and neurophysiologic processes involved in human behaviors, which are the foundation for occupational performance. Specifically, students learn the neural substrates and mechanisms of motor behaviors, sensory-perception, emotions, language, attention, memory and learning. The course also introduces basic screening procedures to identify neurobehavioral dysfunctions. Every Year, Spring

OT 345 Theory, Occupation and Wellness ( 3 cr.) This course highlights health promotion and illness prevention topics and theories applicable to occupational therapy practice. Foundational concepts from public health, behavioral and social science literature, and occupational therapy models are taught to assist students to appreciate health and well-being. Students simultaneously complete a two-hour-per-week fieldwork level 1 experience. Every Year, Fall

OT 345F Theory, Occupation and Wellness Fieldwork Level I (0 cr.) Fieldwork to accompany OT 345. This course provides the student with opportunities to
observe and participate in structured observations and interactions in wellness settings that apply the theories that are taught in the lecture components of the course. Fieldwork is two hours per week. Every Year, Fall

## OT 355 The Occupational Therapy Framework (2 cr.)

This course focuses on the definitions, applications and synthesis of the terms occupation, activity and purposeful activity. The dimensions of occupation as they apply to work, self-care, care of others, leisure and education are explored through theory, simulation and real life. The Occupational Therapy Framework document is analyzed and applied to case studies and videotapes. Class discussions reflect on service learning and its relationship to occupation. Every Year, Fall

OT 355L OT Community Experience Lab (1 cr.) The OT Framework course has a two-three hour-per-week community experience component during which the student is able to observe and, as appropriate, apply the concepts of occupation and purposeful activity in a com-munity-based service setting. The community experience is supervised by faculty with expertise in the analysis of community-based practice and the focus of learning activities for students to be engaged as active learners. Every Year, Fall

## OT 356 Documenting OT Practice and FWI (2 cr.)

This course is an introduction to the philosophy, concepts and clinical reasoning that support the documentation of occupational therapy practice. The course integrates ethical, legal and pragmatic considerations of documentation throughout the occupational therapy process in major practice settings. The course includes a level I fieldwork component for two hours per week that introduces students to requisite psychomotor and cognitive skills in documentation including reviewing client records, developing subjective and objective impressions from observations, and recording data and anecdotal information. Every Year, Spring

## OT 356F Documenting OT Practice Fieldwork (1 cr.)

 Fieldwork to accompany OT 356 . This course provides structured fieldwork observation in various settings and allows the student to observe and explore the documentation process utilized in occupational therapy. Students also have the opportunity to read documentation, compare documentation to observations, and record data and anecdotal information, utilized within the various models such as health care, education, community and social systems. The settings utilized are equipped to provide clinical application of principles learned in the OT curriculum. Students have the opportunity to reflect on this experience within the lecture course. Fieldwork is two hours per week. Every Year, SpringOT 357 Professional Seminar in Occupational Therapy (1 cr.) This course addresses various core skills needed for success in subsequent curricular courses. Participants are introduced to foundational skills in the areas of organization and student skills, professional development and evidenced-based practice. Students partake in various activities to improve student and entry-level practitioner skills such as developing a professional web page, and initial evaluations of occupational therapy research. Every Year, Spring

OT 364 Problem-Based Learning: Risk Factor Human Occupation (1 cr.) The purpose of this problem-based learning lab course is to facilitate student directed learning through the use of cases, scenarios, vignettes and videos that focus on the risk factors that may impact human occupation through the lifespan. Every Year, Spring

OT 415 Health Conditions I ( 6 cr.) This course presents a study of health conditions of individuals between 0-18 years of age, which may limit participation in meaningful occupations. A thought process model approach is used for comprehending and analyzing the general indicators of disease as well as the impact of health conditions on one's daily occupations. Learning opportunities occur through activities such as structured diagnostic case review, differential diagnosis, clinical reasoning activities, decision making and critical inquiry. Every Year, Fall

OT 416 Health Conditions II ( 6 cr .) This course presents a study of health conditions of individuals from age 18 to adulthood, which may limit participation in meaningful occupations. A thought process model approach is used for comprehending and analyzing the general indicators of disease as well as the impact of health conditions on one's daily occupations. Learning opportunities occur through activities such as structured diagnostic case review, differential diagnosis, clinical reasoning activities, decision making and critical inquiry. Every Year, Spring

OT 420 OT Evaluation Process ( 6 cr .) This course provides a comprehensive overview of the evaluation process used in occupational therapy. While opportunities are provided to learn specific assessment tools, emphasis is placed on the clinical reasoning process used with clients seeking occupational therapy services. Application of frames of reference and appreciation of cultural context as they relate to the evaluation process are highlighted. Every Year, Fall

OT 420F Evaluative Process Fieldwork (1 cr.) Two hours per week the student observes elements of the occupational therapy evaluative process in local medical, educational, social and community locations. Every Year, Fall

OT 420L Evaluative Process Lab (1 cr.) The student is provided opportunities for experiential learning within the evaluation process as discussed in lecture. Application of frames of reference and appreciation of all contexts as they relate to the evaluation process are highlighted. (2 lab hrs.) Every Year, Fall

OT 421 Intervention Strategies ( 6 cr .) This course focuses on basic intervention approaches across the age span and diagnostic areas according to the OT Framework document. The lecture reviews the theory and evi-dence-based data supporting the intervention, the process for implementing the intervention, and how to measure the effectiveness of the intervention. Every Year, Spring

OT 421F Intervention Strategies Fieldwork (1 cr.) This course provides structured fieldwork observation in various settings and allows the student to observe and explore the intervention process utilized in occupational therapy. Students also have the opportunity to see, observe and report on the variety of intervention strategies utilized within the various models such as health care, education, community and social systems. Students develop an appreciation for the frame of reference used in various models of practice as a guide to intervention selection. The settings utilized are equipped to provide clinical application of principles learned in the OT curriculum. Fieldwork is two hours per week. Every Year, Spring

OT 421L Intervention Process Lab (1 cr.) The lab portion of this class provides the opportunity for experiential learning and documenting the interventions as discussed in OT 421 lectures. (2 lab hrs.) Every Year, Spring

OT 445 Applied Theory in OT ( 3 cr .) This course is a comprehensive review of theoretical approaches to various dimensions of health and health conditions used in occupational therapy practice. Students learn the elements of many traditional, contemporary and emerging frames of reference including their basic assumptions; historical, philosophical and scientific orientation; domains of concern; views of the function-dysfunction continuum; postulates of change; and their application toward the occupational therapy process including evaluation and intervention. Every Year, Fall

OT 446 Group Process ( $\mathbf{3} \mathbf{~ c r}$.) This course reviews group dynamics theory and its application for intervention and professional development. Topics include group process, group interventions, family systems, cultural influences, group evaluation and contextual variables. Every Year, Spring

OT 446L Group Process Lab (1 cr.) This lab provides interactive group experiences that allow students to apply theories taught in lecture. Students use leadership skills from OT 210 and 212 to facilitate structured
group activities and also design therapeutic interventions for client groups and populations to enhance therapeutic use of self. (2 lab hrs.) Every Year, Spring

## OT 466 PBL Health Conditions and Occupation I

( $\mathbf{1} \mathbf{c r}$.) The goal of the fourth year is to study human health conditions and their impact on the evaluative and intervention process. Students work collectively to research health conditions, evaluations and to synthesize information from previous courses and outside resources to solve problems related to complex health conditions. Critical thinking and group process are emphasized with frequent self-reflection in this PBL lab-based course. Every Year, Fall

## OT 467 PBL Health Conditions and Occupation II

 (1 cr.) The goal of the fourth year is to study human health conditions and their impact on the evaluative and intervention process. Students work collectively to research health conditions, evaluations, and interventions and to synthesize information from previous courses and outside resources in order to solve problems related to complex health conditions. Critical thinking and group process are emphasized with frequent self-reflection in this PBL lab-based course. Every Year, Spring
## Pbilosophy (PL)

PL 101 (UC) Introduction to Philosophy (3 cr.) This course introduces students to a number of central questions in philosophy through critical exploration of ideas from selected great philosophers. It engages students in the close study of several fundamental issues that have arisen in the course of the development of the philosophical tradition-such as free will, our knowledge of the external world, and the meaning and value of truth and justice-giving students the basic tools for further work in philosophy. Every Year, All

PL 202 (UC) Logical Reasoning ( 3 cr.) This course teaches students to recognize and evaluate logical patterns that recur in all language intended to persuade by reason. Students learn proof techniques for logical pattern evaluation, techniques to recognize and evaluate fallacies, and ways of understanding logical patterns in longer, extended passages. The goal of the course is to improve students' natural ability to think clearly and critically by learning to apply logic to arguments in public, academic and private life. Prerequisite: QU 101 or PL 101; Every Year, All

PL 214 American Philosophy ( $\mathbf{3}$ cr.) The quality and aims of American culture are explored in light of contemporary critiques and of the thinking of major contributors to American philosophical traditions. Prerequisite: PL 101 or QU 101; Every Year, Fall

PL 220 (UC) Ethics and Human Values (SL: Service Learning) (3 cr.) Various approaches in, and challenges to, ethics are explored and brought to bear on contemporary personal, professional and societal moral issues. Students undertake Service Learning projects and reflect upon the experience in relation to ideas encountered in course readings and discussions. Prerequisite: PL 101 or QU 101; Every Year, All

PL 222 Ethics in Biomedical Research and Health Care Delivery (3 cr.) Major ethical issues in biomedical research and health care delivery are explored, such as the concepts of health, the nature of human nature, ethical issues in decision-making, human experimentation, genetic engineering, behavior modification, euthanasia, and the right to health/health care. Prerequisite: PL 101 or QU 101; Every Year, Fall

PL 225 Social and Political Philosophy (3 cr.) Students explore the way theories, concepts and ideas are embodied and contested in social and political life. The course provides comprehensive treatment of thinkers, issues and debates that have been of central importance in the evolution and progress of modern and contemporary societies. Students discuss meaningful approaches and differing conceptions of fundamental concepts such as authority, justice, equality, liberty and democracy, connecting them to contemporary issues of liberalism, nationalism, civil rights and others. Several authors and thinkers, ranging from ancient times to the most current, whose thought on these questions has been seminal, invigorate the discussion: Plato, Al Farabi, Machiavelli, Rousseau, Hobbes, Martin Luther King and Michel Foucault. Prerequisite: PL 101 or QU 101; Every Other Year, Fall

## PL 234 Philosophies of Health, Healing and Medicine

 ( 3 cr.) Students examine the concept of health and the assumptions, values and consequences involved in some of the more important ways of defining, preserving and restoring it. This leads to explorations of some of the significant understandings of medicine in relation to healing and to health. Among the understandings considered are, e.g.: the Western "scientific" model; ancient models that are seen as offering provocative alterna-tives-Aryuvedic, Chinese, aboriginal; more recent alternatives developed within the West-Naturopathy, Homeopathy, Reiki, etc.; and faith-based approachesChristian Science, "miracle cures," etc. Although focused on health, healing and medicine, this course ultimately deals with the nature of the good society and welcomes all who are concerned with this perennial question. Prerequisite: PL 101 or QU 101; Every Other Year, SpringPL 235 Philosophy of Science ( $\mathbf{3} \mathbf{~ c r}$.) Students consider the history and nature of, and assumptions and values involved in, the scientific method; the logic of scientific
explanation and theory construction; philosophical and ethical problems in selected natural, social and human sciences. Prerequisite: PL 101 or QU 101; Every Other Year, Spring.

PL 265 (UC) Living Religions of the World (3 cr.) Students explore the idea of a god, the phenomenon of religion and the main religions and related questions of today: aboriginal religion (Native American), Hinduism, Judaism, Buddhism, Christianity and Islam. Prerequisite: PL 101 or QU 101; Every Year, Fall

PL 267 Philosophy of Religion (3 cr.) Religious language, religious experience and religious institutions make up a significant part of life in both traditional and modern cultures. This course analyzes the concepts and terms that are used in religious discourse, including God, holiness, redemption, idolatry, creation, eternal life and sacrifice, among others. Such analysis leads to questions regarding religious statements such as God exists, The cow is holy, and If you fast, you will be redeemed and their relationship with ordinary, everyday experience, as well as with science and with morality. Most important is the fundamental philosophical question what is religion?; answering it means moving beyond philosophy to anthropology, sociology, and of course psychology. Prerequisite: PL 101 or QU 101; Every Other Year, Spring

## PL 320 Thought and Work of Albert Schweitzer (3 cr.)

Albert Schweitzer (1875-1965) made significant, often controversial contributions in several areas: music, philosophy, religion, medical care, service to human need, animal rights and ecological awareness. In 1952 Schweitzer was awarded the Nobel Peace Prize for his many decades of humanitarian work at his jungle hospital in West Africa. In his 80s, he became one of the most active voices in the struggle against the testing of nuclear weapons. Because Schweitzer considered his philosophy to be primarily one of action and service (My life is my argument) Service Learning is an important component of the course. Quinnipiac's Albert Schweitzer Institute offers students many kinds of projects and activities reflecting Schweitzer's many areas of involvement. In this course, students critically explore Schweitzer's life, thought and work and their application to some of the moral problems and cultural and political issues we face today. Prerequisite: PL 101 or QU 101; Every Other Year, Spring

PL 330 Philosophy and Gender (WS 330) (3 cr.) Students investigate the notions of sex and gender and the debate concerning the social versus biological underpinnings of expressions of masculinity and femininity. The relevance of historical views on sex, gender and relations between the sexes to current patterns and developments are considered. Issues facing men and women, as well as
policies and reforms designed to address them are examined. Since it can be misleading to view sex/gender issues apart from such considerations as race, ethnicity, class and sexual orientation, effort is made to achieve an integrated understanding of these intersecting dimensions. Finally, the impact of gendered perspectives on contemporary philosophy, especially epistemology, ethics, and social and political philosophy, is considered. Prerequisite: PL 101 and Junior standing (or department approval); Every Other Year, Spring.

PL 331 Philosophy of Humor ( $\mathbf{3} \mathbf{~ c r . ) ~ T h r o u g h o u t ~ m o s t ~}$ of the history of Western philosophy, the assessment of humor has not been kind. Indeed, not only Plato and Aristotle but also Descartes and Hobbes generally viewed humor with scorn and tended to focus on the negative rather than positive aspects of humor. Humor theorist John Morreall even goes so far to argue that it wasn't until well into the 20th century that humor gained even a semblance of respect among philosophers. This course explores the nature and value of humor in our daily lives and examines humor critically as a virtue that can help us take ourselves less seriously and live better lives. Students analyze the major accounts of humor such as the superiority, incongruity and relief theories highlighting the strengths and weaknesses of each theory. Adopting a critical philosophical lens, students also explore some important connections between humor and aesthetics, ethics and education. Every Other Year, Fall

PL 332 Ancient Philosophy (3 cr.) The development of Greek philosophy and its impact on philosophy in medieval times is traced through the pre-Socratics, Plato, Aristotle and various Hellenistic perspectives, Epicureanism, Stoicism and Skepticism. This course emphasizes understanding, analyzing and evaluating the arguments of the philosophers, dealing with problems concerning the nature of reality, the self, knowledge, the good, the state and the transcendent. Prerequisites: PL 101 and Junior standing (or department approval); Every Year, Fall

PL 333 Modern Philosophy (3 cr.) Dramatic cultural movements of the 16th century, such as the Renaissance, the Reformation and the rise of modern science, introduced a new era of philosophy in the 17th and 18th centuries. This course examines the efforts and far-reaching influence of modern thinkers including Descartes, Hobbes, Spinoza, Leibniz, Locke, Berkeley, Hume and Kant. The course provides an opportunity to explore issues concerning the nature of mind and body, the scope and limits of knowledge, the conflict between freedom and determinism, and God. The course gives students a sense of the value and limitations of our intellectual heritage. Prerequisites: PL 101 and Junior standing (or department approval); Every Year, Spring

PL 334 Medieval Philosophy (3 cr.) This course focuses on the history of medieval philosophy. Students discuss figures from the Christian, Islamic and Jewish traditions, including Augustine, Avicenna, Maimonides, Aquinas, Scotus and Ockham. Particular attention is given to examine the manner in which these philosophers confronted and assimilated Aristotelian philosophy and how they anticipate certain dimensions of modern philosophy. Prerequisites: PL 332 and Junior standing (or department approval); Every Other Year, Spring

PL 335 Contemporary Philosophy (3 cr.) The ideas of Hegel, Kierkegaard, Nietzsche and Mill anticipate the humanism and diversity of perspectives within our contemporary era. Views of some prominent representatives of various philosophical movements: Marxism (Marx, Engels); Pragmatism (Pierce, James, Dewey); Existentialism (Marcel, Sartre); Logical Positivism (Russell, Wittgenstein, Ayer); Postmodernism (Foucault, Derrida); and Feminism (de Beauvoir, Arendt) are critiqued. Students are personally involved in the philosophical enterprise, exploring their own views on issues raised in class and endeavoring to gain a critical understanding of contemporary culture in light of philosophies that have shaped it. Prerequisite: PL 333; Every Other Year, Fall

PL 337 Human Rights: Theory and Practice (3 cr.) Students address the philosophical fundamentals of human rights while emphasizing the practical aspects of human rights work, the purpose being to understand the ways in which human rights scholars, activists and international and governmental officials argue about human rights and their implementation. Prerequisites: PL 101 and Junior standing (or department approval); Every Other Year, Fall

PL 340 Philosophy of Sex and Love ( 3 cr.) This course presents a study of philosophical ideas on sex and love, the views of both Western and Eastern religions, and a critique of the moral issues concerning different types of sexual and love relationships. The significance of these viewpoints for living well is considered. Prerequisite: PL 101; Every Other Year, Fall

PL 367 Evil and Suffering ( $\mathbf{3}$ cr.) This course considers the human endeavor to understand and surmount religious, philosophical and existential problems posed by evil and suffering. Prerequisite: PL 101 and Junior standing (or department approval). Prerequisite: PL 101; Every Other Year, Spring

PL 368 Life, and Life After Death (3 cr.) This course presents a study of the ideas of immortality, resurrection, reincarnation and eternal life, drawing upon writings of philosophers, theologians and philosophers of science. The significance of these views in creating values for the living is considered. Prerequisite: PL 101 or QU 101; Every Other Year, Spring

PL 401 Senior Seminar (3 cr.) This is a writing and research seminar for senior philosophy majors. Students engage with philosophical primary and secondary readings in group discussion. They prepare and present a senior thesis on a topic of their choice, with guidance by faculty from the department. Prerequisites: PL 202; PL 332 or PL 333; Every Year, Spring

Courses offered as needed
PL 200 Special Topics in Philosophy (3 cr.) Prerequisite: PL 101 or QU 101
PL 220H (UC) Honors Ethics and Human Values (SL: Service Learning) (3 cr.) Prerequisite: PL 101 or QU 101
PL 236 Philosophy of Language ( 3 cr ) Prerequisite: PL 101 or QU 101
PL 238 Philosophies of the Future (3 cr.) Prerequisite: PL 101 or QU 101
PL 240 Philosophy of Sport (SPS 240) (3 cr.) Prerequisite: PL 101
PL 250 Philosophy and Art (3 cr.) Prerequisite: PL 101 or QU 101
PL 300 Special Topics in Philosophy ( $\mathbf{3}$ cr.) Prerequisite: PL 101 or QU 101
PL 336 Philosophy of History ( 3 cr.) Prerequisite: PL 101, HS 111 or HS 112
PL 338 Paradoxes (3 cr.) Prerequisite: PL 202
PL 360 Innovation in the Arts and Sciences (AR 360) (3 cr.)
PL 372 Contemporary Philosophy ( $\mathbf{3}$ cr.) Prerequisites: PL 101; one course from PL level 200
PL 380 Interactive Arts (AR 380) (3 cr.)

## Physical Education (PE)

PE 102 Yoga ( 1 cr .) Through yoga, students learn to honor their bodies, quiet their minds and relieve stress and anxiety. Practicing yoga helps participants to bring peace and order into their busy lives. Every Year, All

PE 106 Fundamentals of Boxing ( 1 cr.) Basic offensive and defensive boxing skills are taught and practiced. Balance, movement and conditioning are stressed. Timed workouts include rope jumping, punching bags, shadow boxing and sparring. Final class may be held in actual boxing facility. Every Year, All

PE 109 Indoor Rock Climbing ( 1 cr.) This is a basic course in rock climbing, utilizing indoor climbing walls at an off-campus facility. Students are taught proper technique, safety and knots, as well as the purchase, use and maintenance of equipment. Off campus; transportation is required. Course fee. Every Year, All

PE 113 Beginning Golf (1 cr.) Students are introduced to the fundamentals of golf, including use of irons, woods
and putter, as well as rules of golf and course etiquette. Classes meet at the Sleeping Giant Golf Course and Driving Range. A full set of clubs is provided. Off campus; transportation required. Course fee. Every Year, All

PE 115 Beginners Tennis ( 1 cr .) Students are introduced to the basic skills of tennis with special emphasis on forehand, backhand, serve and playing strategies. Scoring, rules of tennis, and court etiquette also are presented. Small classes learn in a fun-filled environment. Racquets and balls are provided. Every Year, All

PE 119 Advanced Golf Weekend Workshop (1 cr.) This course is presented as a weekend golf school, with lessons and playing time for intermediate and advanced golfers only. Students must be able to shoot in the low 90s for 18 holes. Students must be available Friday 4-7 p.m., and Saturday and Sunday 10 a.m. -4 p.m. Every aspect of the game is covered in seminars, on the driving range and on the golf course. Off campus; transportation required. Course fee. Every Year, All

PE 120 Aerobic Instructor Training (1 cr.) In this class, which is taught on the York Hill Campus, students learn how to teach group fitness classes and become a certified instructor. Certification details are discussed during the first class; there is an additional fee for certification. The class includes safety, formatting, choreography, music, liability and more. Once certified, students may be selected to teach classes at Quinnipiac or other area gyms and fitness centers. No experience necessary. Every Year, Fall

## PE 122 Advanced Tennis Weekend Workshop (1 cr.)

This weekend tennis camp for intermediate and advanced players covers all aspects of the game including stroke production, strategy, conditioning and care of equipment. Students must be available Friday 4-7 p.m., Saturday and Sunday 10 a.m. $-4 \mathrm{p} . \mathrm{m}$. Tennis racquets and balls are provided. Every Year, Fall

PE 125 Pilates ( $\mathbf{1} \mathbf{~ c r . ) ~ P i l a t e s ~ i s ~ o n e ~ o f ~ t h e ~ m o s t ~ c h a l l e n g - ~}$ ing and effective means of building core stability, improving body mechanics, balance, coordination, strength and flexibility. Starting with the foundation of mat Pilates, this course presents an in-depth approach to breathing instruction, body alignment and a unique set of challenging exercise sequences. Students learn basic anatomy and physiology as it relates to Pilates. Every Year, All

PE 126 Fundamentals of Kickboxing (1 cr.) Patterned after the training routines of international competitive kickboxers, this course teaches basic and intermediate boxing and kicking techniques, footwork, combinations, and if desired, light sparring. It provides an excellent cardiovascular workout and flexibility training, while enhancing muscular endurance. Every Year, All

PE 127 Beginning Fencing (1 cr.) This course presents the fundamentals of fencing using the three classes of weapons: foil, sabre and epee. Offensive and defensive movements are studied, as well as the techniques of engage, disengage, parry and lunge. It is the perfect sport for students of all ages, sizes and abilities. All equipment is provided. Every Year, All

## PE 135 Rocks and Ropes Camp-Out Weekend (1 cr.)

 This two-day, two-night class includes group challenges, high and low rope course activities, a night hike, and canoe instruction on the lake. Food and lodging are provided. Students must provide their own sleeping bag. Off campus; transportation required. Course fee. Every Year, Fall
## PE 139 Fitness Training and Nutritional Strategy (1 cr.)

This fitness program is designed to decrease body fat and increase lean body mass through cardiovascular exercise, circuit training, resistance training, and proper nutrition. Every Year, All

PE 142 Sailing Weekend (1 cr.) Spend a fabulous weekend learning to sail on New Haven Harbor. Learn basic sail techniques including points of sail, sailing terms, parts of the boat, rigging and local maritime sailing history. Students must be available Friday night 4-7 p.m.; Saturday and Sunday 10 a.m. $-4 \mathrm{p} . \mathrm{m}$. Off campus; transportation required. Course fee. Every Year, All

PE 143 Recreational Games Weekend (1 cr.) Leisure time games are the agenda for this class. Students learn lifetime activities that can be played by all ages. Activities may include volleyball, duckpin bowling, dodgeball, kickball, elementary games, a field day and more. Students must be available Friday 4-7 p.m., Saturday and Sunday 10 a.m. -4 p.m. Course fee. Every Year, All

PE 144 Fresh Water Fishing Weekend ( 1 cr .) Fishing is one of the most popular recreational activities in America. This course provides information about rods and reels; fishing line, hooks, bobbers and lures; fishing knots; types of fish; releasing fish; cleaning and cooking fish. Instruction includes classroom as well as actual fishing time. Students must be available Friday 4-7 p.m., Saturday and Sunday 9 a.m. -2 p.m. Off campus; transportation required. Course fee. Every Year, All

PE 147 Intramural Officiating-Winter (1 cr.) This class teaches students the rules, mechanics and positioning to officiate intramural basketball, volleyball and softball contests. Students are provided information to advance and officiate at the high school level. Every Year, Spring

PE 148 Spinning ( 1 cr.) Spinning is an indoor cycling program. Participants set their own level of intensity by adjusting the bike's resistance. Learn proper bike setup and safety, heart rate training guidelines and aerobic base building principles. The riding time begins at $30 \mathrm{~min}-$
utes and progresses each week with final ride of 1 hour, 15 minutes. Everyone succeeds. Spinning is taught at the York Hill Campus. Every Year, All

PE 151 Cardio Conditioning ( 1 cr .) This class delivers a total body workout, combining non-impact aerobic and progressive training with hand-held weights and resistance rubber bands (no weight room). Class activities provide the most efficient and effective methods to improve cardiovascular performance while strengthening and sculpting muscle groups. Every Year, All

PE 152 Cardio Sculpt and Pump (1 cr.) This class features a total body workout and an insightful approach to highly practical, safe, adaptable techniques specifically designed to develop strength, balance and flexibility. The instructor utilizes a specific contingent of conditioning exercises with emphasis on precision (no weight room). Aesthetics aside, this is a great way to develop good posture and a strong, flexible, graceful body. Every Year, All

PE 153 Flow Yoga (1 cr.) An innovative series of yoga postures that build and flow with sequential linking challenging your muscular strength, cardiovascular endurance, flexibility, balance, and mental stamina. Every Year, All

PE 154 Cardio Kickboxing ( $\mathbf{1}$ cr.) This is a high-energy aerobic workout consisting of real kickboxing and selfdefense techniques choreographed to the latest techno and trance music. Participants sweat and tone the upper and lower body with jabs, punches, kicks and more.
Every Year, All
PE 155 Integrated Strength (1 cr.) Integrated strength training is a simple and effective way to improve muscle strength, function, shape and definition. This class takes a base move and adds layers to challenge the muscles in every way possible. No heavy weights are utilized to get the burn and fatigue your muscles. The class is open to all fitness levels and incorporates balance and stability into basic strength-training moves, completing each workout with a section of flexibility. Participants experience an improvement in their total fitness level throughout the semester. Every Year, All

PE 160 Games, Games, Games ( 1 cr.) Students get plenty of activity as they play favorite games, including kickball, spud, four corners, relay races, scavenger hunts, parachute games and more. This course is ideal for MAT students who may be teaching physical education during their internship, camp counselors or those who just want to have fun. Every Year, Spring

PE 161 Ballroom Dancing (1 cr.) Learn to tango, salsa, swing and more. This course covers basic patterns and some variations in three to four dances with an emphasis
on basic technique and learning to move comfortably on the dance floor. Every Year, All

PE 162 Canoeing Weekend ( 1 cr .) Learn to canoe. Instruction allows students to explore several parts of the Connecticut coastline including lakes and the Quinnipiac River. No experience is necessary; all equipment is provided. Students must be available Saturday and Sunday from 9 a.m. -5 p.m. Off campus; transportation required. Course fee. Every Year, Fall

PE 164 Fencing Weekend (1 cr.) Stage combat is a term used to describe fencing for the theater. This course teaches students the basic skills in fencing, leading to an understanding of how to incorporate those skills into various theatrical scenes. The students create, choreograph, rehearse, and perform their interpretations of famous fencing scenes from stage and screen. All equipment is provided. Students must be available Saturday and Sunday 10 a.m. -4 p.m. Class Requirements: Comfortable, loose-fitting clothing; sneakers.

PE 165 Weight Lifting for Body Builders (1 cr.) This class covers proper form for joint protection as it relates to weight lifting for a body-building effect. Topics include: the basics of repetition schemes, the effect of changing reps and weights for maximum muscle hypertrophy and/or growth, and proper nutrition for optimal recovery and results, including nutrient timing and basic supplementation for body building. The class includes lectures as well as workout time in the Fitness Center. Every Year, All

PE 169 Taekwondo ( $\mathbf{1}$ cr.) Taekwondo provides a fun and effective fitness regimen in its diverse aspects as a form of self-defense, as an art form and as a competitive sport. Classes consist of extensive stretching, the teaching of basics to beginners, forms of self-defense and sparring techniques. Participants use traditional punching, kicking and blocking techniques from ancient martial arts disciplines for self-defense, as well as ancient principles of self-control, focus, balance, oneness and self-discipline. Taekwondo emphasizes the use of the whole body, enhances flexibility and coordination and increases aerobic capability. Promotional tests are held at the end of each semester. Every Year

PE 171 All Levels Golf Weekend (1 cr.) This class will improve the playing skills and course management techniques of all participants. This weekend course will include lessons and practice time in a variety of settings. A round of golf will be played each day. Players of all abilities are welcome. Golf clubs will be provided when necessary. Students must attend ALL sessions: Friday 4-7 p.m.; Saturday and Sunday 10 a.m. -4 p.m. Off campus; transportation required. Course fee.

PE 172 Contemporary Jazz (1 cr.) This course combines jazz/modern warm-up with an emphasis on stretching. This technique study enhances body placement (alignment) and conditioning. Students learn general health guidelines and nutrition, while mastering choreography pieces. Every Year, All

PE 173 Rhythm Tap ( $\mathbf{1} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ o f f e r s ~ a ~ s t u d y ~ i n ~}$ rhythmic expression using the feet, the body, and theatrical props. Students have an opportunity to perform individual creative expression developing their own patterns of rhythm through the use of the body and/or theatrical props. Each student makes his or her own music. Every Year, All

PE 174 Ballet and Broadway-Classical Technique Applied to Contemporary Choreography (1 cr.) This course offers a ballet technique study including classical training in barre, center floor and across the floor. Students learn the influences of Russian, French and Italian, including styles of arm carriage (port de bra) and arabesque lines. They learn ballet technique in strength and body placement, and choreography with contemporary styles using American Musical Theatre musical arrangements. Every Year, All

PE 175 Yoga Foundation and Fundamentals ( 1 cr.) Yoga is more than movement. This class explores the theory, rationale and basic components of yoga that go beyond the poses themselves. Students focus on movement, meditation and yogic sleep and how they fit into our everyday life. This course provides a strong foundation to what yoga is really about. Every Year, All

PE 177 Pistol Marksmanship (1 cr.) This class is a basic introduction to firearms, their function, and how to safely use a pistol. Students obtain the knowledge and level of responsibility required to become a firearm owner and to enjoy the world of shooting sports. All classes are taught indoors; all equipment is provided. Students have ample opportunities to use the shooting range. Upon the successful completion of the course, students receive a letter and certificate of completion-one requirement for obtaining a CT gun license. Off campus; transportation required. Course fee. Every Year, All

Courses offered as needed
PE 118 Jujitsu (Self-Defense) (1 cr.)
PE 140 Elementary Physical Education (1 cr.)
PE 149 Intramural Officiating-Fall Sports ( 1 cr .)
PE 150 Dance Salsa Plus! (1 cr.)
PE 163 Leisure Time Activities for the Aging (1 cr.)
PE 166 Intermediate Ballroom Dancing (1 cr.) Prerequisite: PE 161
PE 167 Walking ( 1 cr.)
PE 168 Intermediate Golf (1 cr.)
PE 176 Physical Activity and Community Service (1 cr.)

PE 209 Advanced Indoor Rock Climbing (1 cr.) Prerequisite: PE 109

## Physician Assistant (PY)

PY 104 Physician Assistant Seminar I - Orientation to the Profession (1 cr.) This course is for ELMPA majors only. Students gain a basic knowledge of the fundamentals of the physician assistant profession. The physician assistant role expectations, practice and ethics in the health care field are examined. In addition, historical information on the profession is presented. Students must have active AAPA and ConnAPA memberships. Every Year, Spring

PY 204 Physician Assistant Seminar II—The Interdisciplinary Team (1 cr.) Students are provided with a basic understanding of the roles of those professionals who are part of the health care team. Experts from a variety of health care fields explore the relationship of the practicing PA in each professional domain. 500 hours of documented patient contact is required to take this course. Prerequisites: PY 104, PY 397, PY 400; Every Year, Spring

PY 388 Clinical Training I (3 cr.) This course is for ELMPA majors only. It provides classroom and clinical experience and offers the pre-physician assistant student emergency medical technician training as a prerequisite for obtaining the 500 hours of documented direct patient contact required by the ELMPA program prior to entering the professional component. Emphasis in study is placed on patient assessment, clinical signs and symptoms, pathophysiology and the pre-hospital care of patients. Clinical rotations on an ambulance service are required. ELMPA majors who already have obtained EMT certification can replace this course with an independent study focused on emergency medical services during the semester in which the course is normally required. Successful completion of the PY 388-PY 389 sequence and the fulfillment of state mandated hours of instruction are required to be eligible for certification. Prerequisite: PY 104; Every Year, Fall

PY 388L Clinical Training I Lab (0 cr.) Lab to accompany PY 388. (3 lab hrs.) Every Year, Fall

PY 389 Clinical Training II ( $\mathbf{3} \mathrm{cr}$.) This course is a continuation of PY 388. Prerequisite: PY 388; Every Year, Spring

PY 389L Clinical Training II Lab (0 cr.) Lab to accompany PY 389. (3 lab hrs.) Every Year, Spring

## PY 397 Pre-health Professions Clinical Affiliation

(3 cr.) This apprenticeship program pairs an undergradu-
ate student who displays maturity, dedication and sensitivity with a health professional in his or her field of interest for a 12 -week period. The affiliation is designed to provide the student with the opportunity to observe social, ethical and medical issues in a clinical setting. Professional dress is required. Students may register for the course according to the following criteria: permission of faculty; completion of a minimum of three semesters at Quinnipiac; satisfactory GPA. This course is for ELMPA students only. Prerequisite: PY 104; Every Year, Fall and Spring

PY 400 Pre-Physician Assistant Clerkship (3 cr.) Prephysician assistant students participate in a mentoring program that provides the opportunity to gain knowledge through direct observation. Each student spends time with three to five physician assistant professionals who specialize in different areas of medicine. Prerequisites: PY 104, PY 397; Every Year, Spring

PY 401 Introduction to Clinical Problem Solving (3 cr.) This course offers the pre-physician assistant student the tools necessary for developing a systematic approach to the patient and his or her medical condition. Students learn to access and evaluate the medical literature for identification of the following: the signs and symptoms of disease presentation, the components of a history and physical, and the understanding of a differential diagnosis. In addition, students are taught the basis for developing a patient assessment plan. EMT Certification required. Prerequisites: PY 104, PY 397; Every Year, Fall

## Physics (PHY)

PHY 101 (UC) Elements of Physics (3 cr.) A survey of basic principles of physics and some important applications. The laws of motion, gravity and electromagnetism are presented along with fluids, wave phenomena and optics. Modern physics includes quantum theory, atomic structure, radioactivity and semiconductors. Must be taken in conjunction with PHY 101L. This course is suitable for both science and nonscience majors. Students who have credit for SCI 101 may not receive credit for PHY 101. Every Year, Fall and Spring

PHY 101L (UC) Elements of Physics Lab (1 cr.) Lab must be taken with PHY 101. (2 lab hrs.) Every Year, Fall and Spring

PHY 110 (UC) General Physics I (3 cr.) This course considers phenomena that examine the fundamental nature of the physical universe as well as the theories of the nature of the universe. Topics include kinematics and dynamics of motion, momentum, energy and equilibrium of rigid bodies and fluids, and thermal properties of
matter. Must be taken in conjunction with PHY 110L. This course is designed primarily for science majors. Every Year, Fall and Summer

PHY 110L (UC) General Physics I Lab (1 cr.) Lab must be taken with PHY 110. (2 lab hrs.) Every Year, Fall and Summer

PHY 111 (UC) General Physics II (3 cr.) This course continues the examination of physical phenomena including vibrations and waves, sound, light, optics, electricity and magnetism. Also covered are the study of D.C. and A.C. circuits, and some elements of modern physics. Must be taken in conjunction with PHY 111L. This course is designed primarily for science majors. Prerequisites: PHY 110, PHY 110L; Every Year, Spring and Summer

PHY 111L (UC) General Physics II Lab (1 cr.) Lab must be taken with PHY 111. (2 lab hrs.) Every Year, Spring and Summer

## PHY 121L University Physics I Lab (0 cr.)

## Political Science (PO)

PO 101 (UC) Introduction to Political Science: Justice, Politics and Power (3 cr.) This course presents an introduction to the systematic analysis of power relations in local, national and global spheres of social life. The course surveys major political ideologies and predominant institutions. Students explore how dominant institutions process issues of power and justice, and how those issues appear when viewed through the lenses of major political ideologies. Every Year, All

PO 131 (UC) Introduction to American Government and Politics ( 3 cr .) This course covers the development of the constitution, the nature of Federalism, the state and the national government. Students explore the duties and powers of the President, Congress, the Supreme Court and administrative agencies. Political parties, the nominating process, elections and electoral behavior as well as political interest groups and public opinion. Every Year, All

PO 201 Political Inquiry (3 cr.) This course is designed for political science majors in their junior year. Students examine the culture of inquiry as a problem-solving discipline and contribute toward political understanding through multiple reading, thinking and writing exercises. Course material focuses on current issues in politics and government and asks how political scientists might respond to these issues. The course emphasizes theory development and hypothesis formation; various methodological approaches; and several sub-disciplinary per-
spectives within political science. For political science majors only. Junior status is required. Prerequisites: PO 101, PO 131; Every Year, All

## PO 211 (UC) Introduction to International Relations

( 3 cr ) Students are introduced to the study of politics on the global level. The course focuses on the nature of the international system of nation-states, including the importance of state sovereignty, the political interactions between states, and the causes of war and peace. Additional topics include understanding the domestic bases for foreign policy decisions, the different tools available for state action in the international realm (diplomacy, espionage, military intervention), the increasing importance of international economic relations, and the function and evolution of international law and organizations. Prerequisite: PO 101; Every Year, All

PO 215 (UC) Political Theory (3 cr.) In this course, students survey political philosophy, from Aristotle and Plato through Mill and Marx. Students use these thinkers as a way to explore issues such as the nature of society, the nature of government, and the nature of freedom, justice and the law. Prerequisite: PO 101; Every Year, All

PO 219 Women in Political Thought ( 3 cr.) Students explore different approaches to explain the status of women. Theoretical perspectives that students consider may include: liberal feminism, radical feminism, Marxist/socialist feminism, feminism of care, conservative feminism and global feminism, among others. Students critically evaluate political concepts such as freedom, equality, rights and oppression, as well as learn about how different thinkers have conceptualized gender, politics, power and the role of the state. The course requires careful reading, intensive class discussion and multiple writing assignments. Prerequisites: PO 101, PO 131, PL 101, PS 101, SO 101 or WS 101; Every Other Year, All

PO 221 (UC) Introduction to Latin America (3 cr.) This is the transdisciplinary introductory course for the minor in Latin American studies. Various disciplines, including history, anthropology, economics and languages, are interwoven in an exploration of concepts, behaviors and traditions associated with Latin America. A survey of Latin American regions spanning the Revolutionary period to the present, with a focus on the past 50 years, is utilized to focus the content. Prerequisite: PO 101 or QU 101; Every Other Year, All

PO 231 (UC) Elections and Political Parties (3 cr.) This course offers an intensive analysis of elections and parties in the U.S. and other nations. Special emphasis is placed on the development of competitive political party systems as vital to the success of democracy. Topics include the history of elections and campaigns, the role
of gender, ethnicity and class in modern political parties, voting behavior, party strategies, campaign advertising, fundraising, and media coverage of elections. The course includes classroom visits by party leaders and candidates, and requires students to participate in direct observation as participants in an election campaign. Prerequisite:
PO 131; Every Third Year, All
PO 245 (UC) International Political Economy (3 cr.) This introduction to the analysis and understanding of the international economy from a political perspective centers on the increasing internationalization, or globalization, of the capitalist market economy. This is analyzed from three perspectives, each of which raises different political issues and strategies: neoliberalism, economic nationalism (neomercantilism), and Marxism. Current issues dealing with international trade and finance, the environment, third world development and marginalization, and gender/race issues in the international economy are discussed. Prerequisite: PO 211 or EC 111; Every Third Year, Spring

PO 247 (UC) Actors and Processes in U.S. Foreign Policy ( $\mathbf{3} \mathbf{~ c r}$ ) This introduction to U.S. foreign policy and how it is made combines a study of world politics, American political processes and current events. The course focuses on actors and policy processes, including the role of Congress, the President, interest groups, the mass media and public opinion (among others), and the influence of ideology on U.S. foreign policy. The course examines several 20th-century international crises, asking: what lessons were learned by these experiences, and how do these episodes illuminate the formation of foreign policy in the United States? The post-Cold War world is examined as a context of current challenges to American foreign policy. Prerequisite: PO 211 or PO 131; Every Third Year, Fall

PO 270 State and Local Government ( $\mathbf{3} \mathbf{~ c r}$.) The role of states in the federal system is analyzed. Structure and problems of state and local governments are examined. Prerequisite: PO 131; Every Year, Spring

PO 280 Congress and the Presidency ( 3 cr.) The relationship between the legislative and executive branches of government in the United States. Readings cover the following issues: the intent of the founding fathers; the evolution of political parties and their impact on relations between the first and second branches; conflicts over foreign policy and war making powers; and the growth of the imperial presidency after World War II. Prerequisite: PO 131; Every Third Year, All

PO 287 Women and Public Policy ( $\mathbf{3}$ cr.) Students examine the major public policy issues affecting gender relations in the U.S. today, including: reproductive rights and abortion, labor policy, welfare policy, sexual and
domestic violence. Students discover the process by which issues of importance to gender equality have historically emerged on the public agenda, the ways in which policy debate is shaped once an issue becomes a public problem and the competing policy paradigms surrounding these controversial policy issues. Prerequisite: one course from PO, WS level 200; Every Other Year, All

PO 311 Topics in International Relations (3 cr.) This advanced seminar focuses on in-depth critical analysis of current issues and themes in international relations. It may deal with topics from issues of war, peace and security, to the politics of the international economy, emerging international cultural norms, and international law. The course requires careful reading, intensive class discussion and multiple writing assignments. Prerequisite: PO 101; Every Other Year, Spring

PO 315 Democratic Theory and Practice (3 cr.) The relationship between democratic ideas and practices in the formulation of public policy is analyzed. Topics include the nature of the citizen and community, the role of the community in policy making, and the ethics of political choice. Major policy issues include election reforms, racial inequality, the environment, and welfare and human rights in foreign policy. Students are expected to participate in group projects and discussions and do extensive analytical writing. Prerequisite: PO 131, PO 215 or PO 216; Every Third Year, All

PO 317 International Law (3 cr.) Students are introduced to the nature and development of international law as part of the global political system. Students explore sources of international law from treaties, custom, general principles, judicial decisions and scholarly writing. Other topics include the connection between international law and national law; the role of states and individuals; dispute resolution using arbitration and national and international court cases; use of law to manage international conflict; negotiation; and legal issues concerning shared resources. Prerequisite: PO 211; Every Other Year, All

## PO 318 Development of International Organizations

 ( 3 cr .) Students study the many institutions at the global level-governmental and nongovernmental-that provide a context and structure for global politics and governance. To set the stage for understanding how these organizations work, students acquire an understanding of organizational theory and the historical and political contexts for the creation of the organizations under study. An investigation into the structure of governmental organizations leads to an understanding of why they work and when they do not. Students focus, particularly, on study of the United Nations system of organizations. Prerequisite: PO 211; Every Other Year, AllPO 321 Comparative Government (3 cr.) This course presents a comparative study of political institutions, forms of governments, leaders, socioeconomic processes, development strategies, cultures and traditions, and foreign policies of the First, Second and Third World countries with a view to providing cross-cultural and cross-national explanations regarding similarities and differences between and among nation-states. Prerequisites: PO 101; one course from PO level 200; Every Other Year, Spring

PO 332 European Politics (3 cr.) This course is designed to provide a general introduction to the European Union (EU) by exploring the dynamics of integration of Europe. The issues discussed relate to the general theoretical treatment of integration phenomena, the political economy of integration of Europe and its membership expansion, and the structural and behavioral implication of the Open Market. Of particular relevance to course discussions are the changing notions of security, economics, trade, market regulations, cooperation on the global scene. Special attention is paid to the single currency (the Euro) and how it impacts the process of integration in the EU. Prerequisites: PO 101; one course from PO or IB level 200; Every Year, Fall

PO 333 Middle Eastern History and Politics (3 cr.) This course is designed to explore both historical and contemporary political and socioeconomic developments in the Middle Eastern region. The course begins with a historical review of the demise of the Ottoman Empire, the anti-colonialist revolt, the emergence of Israel, secular nationalism, the rise of Islamism, and the postIslamist era. The focus of the course then shifts to an examination of such issues as geopolitics, oil, the Pales-tinian-Israeli conflict, peace process, Persian Gulf wars, the great-powers' involvement and their interests in this area, terrorism, and globalization and its impact in the region. Prerequisites: PO 101 or PO 211; one course from PO or HS level 200; Every Year, Spring

PO 334 Topics in African Politics (3 cr.) Students study the broad scope of politics taking place on the African continent, while investigating the unique cultural and historical heritage of African societies including colonialism and the challenges of creating independent states, and the more recent history of conflict that has inhibited development in so many countries. Students also study post-conflict reconciliation and development in the African context, including economic growth and the bright future that is possible if African countries can solve their most serious problems and remain free of conflict. Every Other Year, All

PO 353 American Constitutional Law (3 cr.) This course presents an intensive study of the development of constitutional law through the analysis of significant

Supreme Court decisions. Topics covered include: the judicial process and the Supreme Court; Federalism, the states and the division of powers; the basis of national power, taxation, commerce and sovereignty; the separation of powers; the Judiciary, Congress and the Presidency; inter-state relations and national supremacy; the electorate; citizenship and the right to vote. Prerequisites: PO 131; one course from PO level 200; Every Third Year, All

PO 354 Civil Rights and Liberties I (3 cr.) This course considers the Bill of Rights; freedom of expression, freedom of speech, the press, religion and assembly; the establishment clause and the separation of church and state; fundamental rights, substantive due process and the right to privacy; the Fifth, Ninth and Fourteenth Amendments; the equal protection clause and three standards of Supreme Court review; suspect classifications, race discrimination and discrimination against women and the poor; the power to protect individuals and affirmative action. Prerequisites: PO 131; one course from PO level 200; Every Other Year, All

PO 365 Inside Washington, D.C. (3 cr.) In this intensive two-week seminar in Washington, D.C., students interact with well-known speakers from government, the media and academe to discuss the current major issues confronting Congress and the President. In the second week, students confront dilemmas regarding how the media covers national politics and policy. Students participate in daily site visits, tours and special events that provide a perspective from inside Washington including Congress, interest groups, media organizations, lobbying firms and foreign embassies. Students engage with topics such as the impact of national elections, the nature of conflict and bargaining in political institutions, foreign policy dilemmas, the gatekeeper function of the media, spin and media control, media bias, and the rise of new media. Eight-hour days are the minimum expectation over the course of the two-week program. Students must apply and meet University academic achievement standards to be admitted to the seminar. Prerequisite:
PO 131; Every Year, January
PO 395 Advanced Internship ( $\mathbf{3}$ cr.) This advanced internship requires students to complete more than 100 hours of on-site work; keep a field journal; complete a final report that summarizes activities and documents what the internship contributed to student learning in political science; and complete a research paper at least 10 pages in length, based on research relevant to the internship duties and done during the semester of the internship. Prerequisites: PO 101, PO 111 or PO 131; one course from PO level 200; Every Year, All

PO 408 Senior Seminar ( $\mathbf{3}$ cr.) This is a capstone course for senior political science majors. Students prepare and present original research to their peers in the form of a
senior thesis, related to a common seminar theme announced each year. The seminar allows students to apply the knowledge and methodology they have learned in previous courses to a particular project. Prerequisite:
PO 201; Every Year, Spring

## PO 498 Washington, D.C. Program ( 6 cr.) Every Year, All

Courses offered as needed
PO 211H (UC) Honors Introduction to International
Relations (3 cr.) Prerequisite: PO 101
PO 216 (UC) American Political Thought (3 cr.)
Prerequisite: PO 131 or PO 101
PO 218 Politics of Health ( 3 cr.) Prerequisite: PO 131
PO 295 Internship in Political Science (1 cr.)
Prerequisite: PO 101 or PO 131
PO 325 Political Psychology and Public Opinion (3 cr.)
Prerequisites: PO 131; one course from PO level 200
PO 331 Topics in Comparative Government (3 cr.)
Prerequisite: PO 101
PO 348 Political Communication (3 cr.)
Prerequisite: one course from PO level 200
PO 350 Topics in Political Theory ( 3 cr .)
Prerequisite: PO 101 or PO 131
PO 355 Civil Rights and Liberties II (3 cr.)
Prerequisites: PO 131; one course from PO level 200
PO 357 Supreme Court and Foreign Policy (3 cr.)
Prerequisite: PO 131
PO 360 Topics in American Politics (3 cr.)
Prerequisite: PO 131
PO 362 Presidential Election Campaigns ( 4 cr.)
Prerequisites: PO 131; one course from PO level 200
PO 390 Politics and Urban Change (SO 390) (3 cr.) Prerequisites: SO 101 or PO 131; one course from SO or PO level 200
PO 408H Honors Senior Seminar (3 cr.) Prerequisite: PO 201

## Psychology (PS)

PS 101 (UC) Introduction to Psychology ( 3 cr.) Students are introduced to the background and breadth of contemporary psychological science. Natural science, social science and applied science form the basis for topics within the course such as psychology's philosophical origins, its research methods, the study of learning, neuroscience, issues in mental illness, child development, and the application of psychology to contemporary social issues. Every Year, All

## PS 206 Introduction to Statistics in Psychology (3 cr.)

Psychology majors only. This course covers statistical concepts and procedures as they apply to psychology. Students learn to perform statistical tests using both cal-
culators and SPSS. Topics include: descriptive statistics, Z scores, t -tests, chi-square, correlation, and analysis of variance. Psychology majors only. Prerequisites: PS 101; MA 110, MA 118, MA 140, MA 141 or MA 142; Every Year, Fall and Spring

PS 210 Human Sexuality (WS 210) (3 cr.) This course focuses on human sexuality as it develops and changes throughout the lifespan, starting with prenatal development and ending with sexuality of the aging. Additional special topics include sexual dysfunction, sexual variance and the law. Prerequisite: PS 101; Every Year, All

## PS 232 (UC) The Concept of Personality and Its

Development ( 3 cr .) Personality is viewed from a variety of perspectives, including theories of its formation, social functioning and human evolution. Certain theories are examined, as are philosophical implications underlying diverse models of the nature of personality. Prerequisite: PS 101; Every Year, All

PS 233 Cognitive Psychology ( $\mathbf{3}$ cr.) Cognition is studied from a multi-method perspective with an emphasis on information-processing. Topics include models of memory, memory distortion, perception, expertise, cognitive neuroscience, imagery, problem solving, language and cognitive development. The interrelationship between applied and basic research is emphasized. Prerequisites: PS 101; Every Year, All

## PS 236 Child and Adolescent Developmental

 Psychology (3 cr.) Prenatal period, infancy, early childhood, middle childhood and adolescence are surveyed in terms of an individual's physical, cognitive and social/emotional development. Students learn about the major theories and research methods used by developmental psychologists. Results of research studies are used to think about real-world applications.Prerequisite: PS 101; Every Year, All
PS 242 School Psychology (3 cr.) Theoretical and pragmatic concerns of the school psychologist are considered. Topics include child development, psychoeducational assessment, applied behavior analysis, special education legislation, and the role of the public schools as a social institution. Identification and treatments of various school-related exceptionalities such as learning and intellectual disabilities, speech and language disorders, autism, ADHD and giftedness are investigated. Prerequisite: PS 101; Every Other Year, Spring

PS 250 Parenting Science ( $\mathbf{3}$ cr.) This course surveys research topics that pertain to effective parenting, such as parental discipline practices, and the effects of media on development. Research is drawn from fields such as developmental psychology, cognitive psychology, abnor-
mal psychology and anthropology. Prerequisite: PS 101; Every Year, All

## PS 251 Introduction to Conditioning and Learning

( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i n t r o d u c e s ~ s t u d e n t s ~ t o ~ t h e ~ h i s t o r y , ~}$ philosophical bases and contemporary issues in respondent and operant conditioning in particular and in learning in general; surveys current applications of basic theory and research including behavior modification; and examines the social controversy generated by applications. Prerequisite: PS 101; Every Year, All

PS 252 Physiological Psychology (3 cr.) This course is an introduction to the interactions between biological and psychological processing that are the basis for emotion, cognition and behavior. Topics include research methods, brain structure and function, neural plasticity, sleep, learning, memory, reproduction, drug action, sensation, perception and psychological disorders. Psychology majors only. Prerequisite: PS 101; Every Year, Fall and Spring

PS 254 Psychology of Close Relationships (3 cr.) Both familial and non-familial close relationships are examined. Topics such as love, friendship, living together, marriage, relationship maintenance and relationship dissolution are covered. Theories and research in each of these areas are read and discussed. The course aims to increase students' awareness of the issues and conflicts that affect close relationships. Prerequisite: PS 101; Every Year, All

PS 261 (UC) Social Psychology (3 cr.) Study of the effect of social forces on the individual; the role of the situational context in human behavior. Aggression, altruism, attribution, issues in social cognition, group behavior, attitude change and aspects of social psychology and law are among topics covered. Prerequisite: PS 101; Every Year, All

## PS 262 (UC) Psychology of Women (WS 262) (3 cr.)

 This study of the female sex and feminine gender emphasizes the distinction between the two. Survey of issues of women's development: socialization, menstruation, self-concept, menopause; and women's roles, productive and reproductive; and the changing conceptions of femininity, masculinity and androgyny. Prerequisite: PS 101; Every Year, All
## PS 265 Industrial/Organizational Psychology (3 cr.)

This course examines the application of psychological principles and practices to business, industrial and organizational settings. Covered are such issues as personnel selection, job analysis, training, accident prevention, morale, performance appraisal, worker motivation, leadership and organizational communication. Prerequisite: PS 101; Every Year, All

PS 272 (UC) Abnormal Psychology (3 cr.) Historical, philosophical and pragmatic conceptions of normality are explored as well as causes, description and classifications of abnormal behavior and mental illness; historical and contemporary approaches to understanding and treatment; and theories of psychopathology. Prerequisite: PS 101; Every Year, All

## PS 307 Methods I: Introduction to Research Methods

 in Psychology ( 4 cr ) This course provides an introduction to the tools, methods and findings of classic and contemporary experimental and non-experimental psychology. Topics include logical reasoning, statistical inference, research ethics, research design and APA style report writing. Must be taken with PS 307L taught by the same professor. For psychology majors only. Taken concurrently with PS 206. Prerequisite: PS 101; Every Year, Fall and SpringPS 307L Methods I Lab (0 cr.) Lab to accompany PS 307. Every Year, Fall and Spring

PS 308 Methods II: Advanced Research Methods in Psychology (4 cr.) This course introduces students to advanced experimental and non-experimental research methods, including multivariate statistical analyses. Students design, conduct and formally present a major piece of psychological research, including statistical analysis. Must be taken with PS 308L taught by the same professor. For psychology majors only. Prerequisite: PS 307; Every Year, Fall and Spring

PS 308L Methods II Lab ( 0 cr.) Lab to accompany PS 308. Every Year, Fall and Spring

PS 309 History of Psychology ( $\mathbf{3} \mathbf{~ c r}$.) This is a required course for advanced psychology majors. It covers philosophies dating back to ancient Greece. Participants review the history of scientific thought and of brain science. They trace the emergence of the science of psychology and the development of different systems of thought or theoretical perspectives within psychology. Students compare and contrast psychological perspectives in terms of how they have both deepened and limited our understanding. This course is taken in the senior year. Prerequisite: PS 307; Every Year, Fall and Spring

## PS 311 Tests and Measurements in Psychology (3 cr.)

This course covers principles of test construction, standardization and validation; survey of commonly used measures of personality, psychopathology, aptitudes, interests and achievement, particular emphasis on the relationship between the testing movement and the social, political and economic context in which it is embedded. Prerequisite: PS 206; Every Other Year, Spring

PS 325 Health Psychology (3 cr.) The application and contribution of psychological research and practice to the promotion and maintenance of health and the prevention and treatment of illness are explored. Topics covered include stress and illness, psychological aspects of pain, management of chronic and terminal illness, obesity, smoking and other addictive behaviors, sleep disturbances, personality factors in illness and patientpractitioner interaction. Prerequisite: one course from PS level 200; Every Year, All

PS 351 Behavioral Neuroscience: Brain and Behavior ( 3 cr .) The biological bases of behavior are studied in detail. Emphasis is on the brain correlates of motivational states. Topics include reproductive behavior, neuronal plasticity, hunger and thirst, emotion, sleep, language, memory, vision and drug states. Prerequisite: PS 252 or BI 102; Every Year, Spring

## PS 352 Behavioral Neuroscience: Animal Behavior

 ( 3 cr.) Species-specific behavior in vertebrates and invertebrates is explored with particular emphasis on comparative analysis of various social behaviors. Topics include instinct, critical periods, imprinting, reproductive behavior, aggression, learning, sleep, communication and biological clocks. Prerequisite: one course from PS level 200; Every Year, FallPS 354 Sensation and Perception (3 cr.) This course considers the sensory systems as gateways to the mind. Psychological mechanisms of vision, audition, taste, smell, pain and other senses are explored, as well as the psychophysics, anatomy and physiology of these sensory systems. Prerequisite: PS 233 or PS 252; Every Year, Fall and Spring

PS 357 Drugs, Brain and Behavior (3 cr.) This course introduces the student to the effects and mechanisms of action of psychoactive drugs. Drugs used in the treatment of psychological disorders as well as drugs of abuse are covered. In addition to describing basic principles of neuropharmacology, the course covers theories of tolerance, dependence and abuse in depth. Pharmacotherapy for substance abuse and major mental disorders is described from both a biological and clinical perspective. Prerequisite: PS 252; Every Year, Fall and Spring

PS 358 School Age Development (3 cr.) This course is for five-year MAT students only. Students learn what psychology research reveals about development in children between the ages of 5-14. The class explores the following domains: sensory-motor, neurological, cognitive, language, social and emotion. Students learn about developmental questions that pertain especially to school-aged children, such as whether IQ can change, and about influences that may be particularly powerful, such as exposure to community violence. The facts of
development are connected to theories of learning, motivation, intelligence, cognition and cultural psychology and also are applied to education. Prerequisite: PS 236; Every Year, Fall and Spring

## PS 366 Advanced Personnel Psychology (3 cr.) This

 course presents an in-depth exploration of the traditional ideas and innovations of industrial psychology. Topics include, but are not limited to: recruitment and selection of employees, development and implementation of performance appraisal systems, issues involved in training employees, employment law, and labor-management relations. Prerequisite: PS 265; Every Year, FallPS 367 Advanced Organizational Psychology (3 cr.) The history and new developments within organizational psychology are examined closely. Topics include, but are not limited to: organizational theory, research and theories of leadership, leadership development, motivating employees, job attitudes, teamwork, work-family balance and workplace stress. Prerequisite: PS 265; Every Year, Spring

PS 371 Clinical Psychology (3 cr.) The principles and practices of clinical psychology are introduced. The course includes a review of legal-ethical issues and the training of clinical psychologists. The course focuses on methods of clinical assessment and the practice of psychotherapy, including extensive use of case studies. Prerequisite: PS 272; Every Year, Spring

PS 382 Advanced Social Psychology (3 cr.) Contemporary issues and topics in social psychology are examined. Content varies as the area develops and changes but has characteristically emphasized theories of attitude change, psychological effects of mass media, attribution theory, interpersonal attraction, helping behavior, and psychological factors in contemporary social issues. Prerequisite: PS 261 or PS 307; Every Year, Spring

PS 391 Human Services Seminar (3 cr.) For psychology majors in the human services concentration only. Professional, theoretical, clinical and ethical issues related to each student's senior fieldwork experience represent the content of the course. Students are simultaneously registered in PS 393. Prerequisite: PS 371; Every Year, Fall

PS 393 Fieldwork in Human Services ( $\mathbf{3} \mathbf{c r}$.) For psychology majors in the human services concentration only. Students are placed in a community service agency to gain supervised experience in human service programs. Placements may include youth counseling agencies, rehabilitation services, mental health clinics, centers for people with mental retardation, psychiatric hospitals, schools for special populations and others. Each course requires a minimum of 12 hours of fieldwork per week. Due to a commitment of services to clients or patients, particularly strict standards of attendance and responsi-
bility are maintained. PS 393 is taken in conjunction with PS 391. All students in PS 393 must plan to take PS 394 in the spring semester. This course is graded on a pass/fail basis. Prerequisite: PS 371; Every Year, Fall

PS 394 Fieldwork in Human Services ( $\mathbf{3} \mathbf{c r}$.) For psychology majors in the human services concentration only. Students are placed in a community service agency to gain supervised experience in human service programs. Placements may include youth counseling agencies, rehabilitation services, mental health clinics, centers for people with mental retardation, psychiatric hospitals, schools for special populations and others. Each course requires a minimum of 12 hours of fieldwork per week. Due to a service commitment to clients or patients, particularly strict standards of attendance and responsibility are maintained. This course is graded on a pass/fail basis. Prerequisites: PS 391, PS 393; Every Year, Spring

PS 409 Senior Seminar in Psychology ( 3 cr.) This seminar is the capstone course for psychology seniors only. It consists of extensive readings of original research and theory on a topic selected by the student under the guidance of the professor. A senior thesis, written according to departmental standards, is a central part of the requirement. As a capstone course, this course must be taken as a seminar during the academic year and cannot be taken as a tutorial. Most sections are offered in the spring. Senior standing required. Prerequisite: PS 308; Every Year, Fall and Spring

Courses offered as needed
PS 200 Special Topics in Psychology (3 cr.) Prerequisite: PS 101
PS 222 Psychology of Disability (3 cr.) Prerequisite: PS 101
PS 234 Adult Development Psychology (GT 234) (3 cr.) Prerequisite: PS 101
PS 283 Introduction to Forensic Psychology (3 cr.) Prerequisite: PS 101
PS 300 Special Topics in Psychology ( 3 cr.) Prerequisites: two courses from PS
PS 333 Advanced Cognition (3 cr.) Prerequisite: PS 233
PS 335 Images of Women in Psychology and Literature (EN/WS 335) (3 cr.) Prerequisite: one course from PS level 200
PS 355 Advanced Psychology of Learning (4 cr.) Prerequisite: one course from PS level 200
PS 355L Psychology of Learning Lab ( 0 cr.)
PS 356 Psychology of Language ( 3 cr.) Prerequisite: PS 233 or PS 252
PS 370 Intimate Partner Violence Seminar (WS 370) ( 3 cr.) Prerequisites: two courses from PS, SO, CJ, WS
PS 372 Child Psychopathology (3 cr.) Prerequisite: PS 272
PS 373 Positive Psychology (3 cr.) Prerequisite: PS 272

PS 383 Psychology and the Law (3 cr.) Prerequisites: two courses from PS
PS 397 Fieldwork in Industrial/Organizational Psychology (3 cr.)

## Public Relations (PRR)

PRR 101 Principles of Public Relations ( $\mathbf{3} \mathbf{~ c r}$.) This course, which serves as the foundation of the public relations curriculum, traces the development of the public relations field and examines the role of public relations in organizations and society. The role of public relations in society is an important one, and in PRR 101, students are introduced to the roles they will play as part of their duties to demonstrate responsible citizenship throughout their careers. Basic public relations principles and theories are examined along with the public relations campaign planning process. Every Year, Fall and Spring

PRR 201 Public Relations Writing (3 cr.) Written communication is central to most public relations careers. This writing-intensive course introduces students to the world of professional public relations writing. Topics include press releases, pitch letters, desktop publishing and fact sheets. Students are involved in both in-class and out-of-class assignments. Prerequisites: PRR 101, JRN 160; Every Year, Fall and Spring

PRR 311 Sports Public Relations (3 cr.) This class is a comprehensive review of sports management and sports event planning. Students examine such topics as strategic planning, budgeting and time management. Every Year, Fall and Spring

PRR 332 Public Relations Research ( 3 cr.) Quantitative reasoning is expected of today's public relations professional, and this course presents an exploration of both quantitative and qualitative research methods. Students learn how to use principles of scientific research to establish, monitor and evaluate public relations programs and maintain positive relationships with various publics. Prerequisite: PRR 101; Every Year, Fall and Spring

PRR 341 Corporate Public Relations ( $\mathbf{3}$ cr.) This course provides students with the knowledge and skills required for positions in the corporate sector. Topics include media relations, employee communication, community relations, investor relations and crisis communication. Students hone their written communication and critical thinking skills in this class. Every Year, Fall and Spring

PRR 343 Nonprofit Public Relations (3 cr.) This course is designed for students who are interested in nonprofit public relations practice. Nonprofit practitioners help organizations manage their relationships by using many types of communication, and this class helps students
hone the skills that will enable them to prosper as nonprofit public relations professionals. Written communication skills, along with other skills, are stressed in this class. Every Year, Fall or Spring

## PRR 344 International Public Relations (3 cr.)

This course introduces students to the international reach of the public relations profession and the worldwide development of public relations. Students have the opportunity to research public relations in different parts of the world and learn how public relations is practiced in various cultures. Every Year, Fall or Spring

## PRR 346 Health Care Public Relations (3 cr.)

This course introduces students to one of the fastest growing areas of public relations practice. Partly because of our rapidly aging population, health care is expected to be a vibrant area of public relations for years to come. Students learn about the myriad challenges facing health care public relations practitioners in fields such as hospital, pharmaceutical, medical, medical device, health advocacy and government public relations. Students also learn about the complicated world of American health care. Students explore their own responsibilities as citizens as the nation struggles to fund the health care needs of its population. Every Year, Fall or Spring

PRR 347 Fundraising ( $\mathbf{3} \mathbf{~ c r}$ ) This course is designed for public relations students who may wish to enter the field of fundraising (or development). Students are introduced to a variety of fundraising topics from a relational perspective. Topics include relationship management and fundraising, developing fundraising constituencies, developing a case for support, annual funds, major gifts, prospect research, capital campaigns, corporate giving, foundations, stewardship, fundraising ethics and fundraising trends. Every Year, Fall or Spring

PRR 450 Senior Seminar (3 cr.) The senior seminar for public relations majors is Crisis Management. The course examines institutional crisis communication from a management perspective with an emphasis on crisis prevention, planning and response. Senior-level students in PRR 450 apply skills they have learned throughout the program to crisis case studies. Students are called on to demonstrate oral and written communication skills along with proficiencies in such areas as critical thinking, reasoning and creative thinking. Prerequisites: MSS 101, JRN 160, MSS 220; Every Year, Fall and Spring

PRR 495 Public Relations Campaigns (3 cr.) This course is the capstone for students preparing for a career in public relations. Students develop the mindset of a strategic communicator through case analyses and prob-lem-solving exercises. Attention is focused on the public relations planning process. Student teams develop strategic public relations plans for actual clients. Students bring
numerous skills and proficiencies to bear on a real-life public relations problem. Students are expected to demonstrate oral and written communication skills as well as proficiencies in critical thinking, reasoning, creative thinking and quantitative reasoning. Prerequisites: PRR 101, PRR 201, PRR 332; Every Year, Fall and Spring

Courses offered as needed
PRR 345 Investor Relations (3 cr.) Prerequisite: PRR 101
PRR 400 Special Topics (3 cr.) Prerequisites: PRR 101, PRR 201, JRN 160

## QU Seminars (QU)

QU 101 (UC) The Individual in the Community (3 cr.) This first-semester interdisciplinary seminar introduces students to Quinnipiac University by challenging them to locate themselves as individuals who can read, reason, speak and write critically about their academic and civic responsibilities as engaged members of their new learning community. While integrating academic perspectives on the course theme from a variety of disciplines, students consider fundamental questions of human nature, the formation of individual identity and common inheritances, and of how diverse communities form, evolve and sustain themselves through the perennial interplay of individual rights and group responsibilities. QU 101 also lays the groundwork for considering how students can extend their roles and responsibilities as members of the Quinnipiac community to the national and global perspectives they will consider in QU 201 and QU 301. Every Year, Fall

QU 201 (UC) National Community (3 cr.) This interdisciplinary seminar for sophomores/juniors builds on experiences and learning from QU 101, and focuses on the major themes and concepts that structure life in the cultures of the pluralistic American community. The course challenges students to critically examine what it means to assume a role of informed citizenship and leadership in the United States. The topics can range from social media to spirituality, from bioethics to refugee narratives, depending on the specialty of the instructor. All sections address the common course questions: 1) What is the meaning of community in a national context; 2) What is the effect of individualism on our concept of national community and citizenship; and 3) What is the effect of our pluralistic and multicultural heritage on our concept of national community and citizenship? Every Year, All

QU 301 (UC) Global Community (3 cr.) This interdisciplinary seminar for juniors/seniors builds on experiences and learning from QU 101 and QU 201 and focuses on the political, social, cultural, ecological and economic
systems that define the global community. The course challenges students to critically examine what it means to assume a role of informed citizenship and leadership in a global community. The topics can range from the Middle East to Oceanic America, from health care to understanding and combating poverty, depending on the specialty of the instructor. All sections address the common course questions: 1) What is the global community?
2) What is our investment in the global community? and 3) How do we balance personal allegiances or affiliations with membership in the global community? Prerequisite: QU 201; Every Year, All

## Science (SCI)

SCI 101 (UC) Survey of Physical Science I (3 cr.) This introduction to the methods of science is designed to make students aware of the scientific implications of the problems facing the world today. Topics include the metric system, force and motion, heat and work, sound, light, electricity and magnetism. Must be taken in conjunction with SCI 101L. This course is designed for nonscience majors. Students may not earn credit for both SCI 101 and PHY 101. Every Year, Fall and Summer

SCI 101L (UC) Survey of Physical Science Lab (1 cr.) Lab must be taken with SCI 101. (2 lab hrs.) Every Year, Fall and Summer

SCI 102 (UC) Survey of Physical Sciences II (3 cr.) This introduction to the methods of science emphasizes chemical principles, nuclear reactions and their applications, weather, earth science and astronomy. Must be taken in conjunction with SCI 102L. This course is designed for nonscience majors. Every Year, Spring and Summer

SCI 102L (UC) Physical Sciences II Lab (1 cr.) Lab must be taken with SCI 102. (2 lab hrs.) Every Year, Spring and Summer

SCI 105 (UC) Food Chemistry and Nutrition (3 cr.) Students study the fundamental chemistry and nutritional role of food components including carbohydrates, fats and proteins, as well as the importance of vitamins and minerals in the diet. Students learn about recent developments in nutrition and how nutrition research is conducted. Students have an opportunity to apply these concepts to analyze and improve their own diets. Must be taken in conjunction with SCI 105L. This course is designed for nonscience majors. Students may not earn UC credit for both SCI 105 and SCI 161. Every Year, Spring

## SCI 105L (UC) Food Chemistry and Nutrition Lab

 (1 cr.) Lab must be taken with SCI 105. (2 lab hrs.) Every Year, SpringSCI 161 (UC) Nutrition: An Investigative Experience ( 3 cr .) This course embodies investigative experiences within the lecture. Students study the fundamental chemistry and nutritional role of food components including carbohydrates, fats and proteins, as well as the importance of vitamins and minerals in the diet. Students learn about recent developments in nutrition and how nutrition research is conducted. Students have an opportunity to apply these concepts to analyze and improve their own diets. This course is designed for nonscience majors and can be used to fulfill the 3-credit UC science requirement. Students may not earn credit for both SCI 105 and SCI 161. Every Year, All

SCI 162 (UC) Consumer Chemistry I (3 cr.) Students are introduced to the methods of science by studying the chemistry of the Earth's environment. Topics include the atmosphere and chemical pollutants, the ozone layer and its interaction with light waves, the implications of consumer products upon global warming, the chemistry of Earth's water supply, the chemical nature of acids, bases, pH and the causes of acid rain. This course is designed for nonscience majors. Every Year, All

## Science and Values (SV)

SV 301 Science, Technology and Health Care: Present and Future Challenges ( 3 cr .) This course consists of a seminar focused on an issue or theme chosen by the instructor of recent interest related to the connection between scientific, technological, and medical advances and ethical issues. Topics might include application of cloning to humans and animals, interspecies genetic manipulation and agricultural biotechnology, medical interventions in the beginning and end of life, or the cybernetic revolution. This course is required for the science and values minor. Every Other Year

Courses offered as needed
SV 101 Introduction to Science and Values ( 3 cr.)
SV 200 Special Topics (3 cr.)
SV 300 Rise of Modern Science ( 3 cr .)
SV 330 History of Western Medicine (HS 330) (3 cr.) Prerequisites: HS 110, PL 101, HS 111, HS 112, HS 131 or HS 132

## Sociology (SO)

SO 101 (UC) Introduction to Sociology ( 3 cr.) This course investigates the ways in which our social institutions such as the family, the government, politics, religion, health care and others shape our experience. The differences that characterize a stratified society in opportunity, reward, achievement and social class are discussed. Every Year, All

SO 200 Special Topics ( 3 cr ) A variety of special topics courses are offered every year. Every Year, All

SO 201 Sociological Theory ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ h e l p s ~}$ students develop a working knowledge of theory and understand its relevance in other sociological courses they will take. In part, it examines Freud's depiction of the human condition as an epic battle between our individual selfish drives and society's overbearing shame, Marx's claim that revolution is inevitable, Weber's belief that we have sacrificed the human spirit at the alter of efficiency, Mills' claim that we have become cheerful robots in a machine-like society, and Baudrillard's thesis that truth has been murdered in the perfect crime. Prerequisite: SO 101; Every Year, Fall

## SO 205 Orientation to Sociology, Criminal Justice and

 Gerontology (CJ/GT 205) (1 cr.) This course introduces sociology, social services, gerontology and criminal justice majors to the disciplines and fields in which they are majoring. Students meet once a week to discuss the origins, breadth and potential careers in their fields. The course orients the student to the professions within sociology, social services and gerontology through interaction with departmental faculty, former students and practitioners in the field. For sociology majors only. This course is graded on a pass/fail basis. Prerequisite: SO 101; Every Year, SpringSO 225 (UC) Social Problems (3 cr.) This course explores public issues such as poverty, violence, education and addiction as problems of individual adaptation, as a conflict of interest between groups, and as intractable characteristics of the social system. These models suggest different levels of intervention and solution. Prerequisite: SO 101; Every Year, All

## SO 230 Government and Business: The Uneasy

 Partnership (3 cr.) This course presents a study of the way government and business affect one another. The evolution of entrepreneurship is followed historically, from its emergence in Western Europe until the present time, with an emphasis on the roles people, past and present, think each of these two institutions should play. Contemporary controversies such as those concerning freedom and free enterprise, and the proper care for the needy, are considered. Prerequisites: SO 101 or EC 111; Every Year, All
## SO 232 Women in the Criminal Justice System

 (CJ/WS 232) (3 cr.) This course examines the changing patterns of women's criminality, the experiences of women who are processed as crime victims, and the evolution of women's role in law, law enforcement and corrections. Prerequisite: SO 101; Every Year, FallSO 235 American Culture and Society: The 1950s1980s ( 3 cr .) The course examines what it means to be an American. Students explore the structure of American culture and discuss more specific American cultural manifestations in areas such as love, consumerism, childrearing and sport. These topics are covered via an assessment of the health versus pathology of American culture. Course material is rooted in sociological literature within the field of culture and personality. Prerequisites: SO 101; Every Other Year

SO 238 Sociology Through Film ( $\mathbf{3} \mathbf{~ c r}$.) This course is an examination of American society through film viewing, academic reading and discussion. Historically, film has been used to depict American culture as distinct from other cultures, socialize American children, represent the individual in American family life, religion and education, and to create cultural representations of gender and race. Each of these themes is examined, and the course concludes with an analysis of the concepts of social class and corporate power and as conveyed through film. Prerequisite: SO 101; Every Year, Fall

SO 241 (UC) Racial and Ethnic Groups ( 3 cr.) The impact of ethnic and racial identity in the United States is examined with particular consideration of the processes of prejudice and discrimination, social class identity and mobility, and the distribution and exercise of social, economic and political power. Prerequisite: SO 101; Every Year, All

SO 242 Race, Crime and Justice (CJ 242) (3 cr.) In this course, students explore the intersections of race, crime and law in terms of the historical context, present-day situations and future directions. Students examine the concepts of race, crime and law from the viewpoints of the offender, the victim and the criminal justice practitioner within the various aspects of the criminal justice process-from law enforcement to courts to corrections. The course also focuses on the interrelationship between theory, policy and practice. Prerequisite: SO 101; Every Other Year, Spring

SO 244 (UC) Social Stratification (3 cr.) This course examines systems of inequality and how they grow out of, and are reinforced by, both structural and cultural factors. Topics include: social class, race, ethnicity, gender, sexuality, the interrelationships of all of these as forces of stratification, and how they are manifested in societal institutions such as the economy, the educational system and the criminal justice system.
Prerequisite: SO 101; Every Year, All
SO 250 Youth Crime (CJ 250) ( $\mathbf{3} \mathrm{cr}$.) This course deals with youth crime as distinct from adult offending. Students examine development of the juvenile delinquency concept and justification for classifying juvenile offend-
ers as separate from adults. Factors contributing to the onset of juvenile delinquency and relevant research also are examined. The course considers the development and current functions of the juvenile justice system, paying particular attention to the challenges justice officials face daily. A range of widely used treatment strategies for dealing with juvenile offenders is examined.
Prerequisite: SO 101 or CJ 283; Every Year, Fall
SO 253 The Immigrant Experience (3 cr.) Each year people come to the U.S. from all over the world seeking such things as religious freedom, political asylum and better economic opportunities. Historically, immigrants and their cultures have played a large role in enriching American culture and the economy. Still, many wonder whether immigrants are also a drain on the economy and worry that they will change American culture for the worse, creating a backlash against immigration. In using a sociological perspective to examine issues surrounding immigration, this course examines how structure and agency interact to shape both the impact of immigration on U.S. society and the experiences of immigrants themselves. Prerequisite: SO 101; Every Year, Spring

SO 255 (UC) Sociology of Families (WS 255) (3 cr.) In this introductory course, students study families in the U.S. Topics include the ways in which families have evolved over time and the effect of economic and social factors (such as race, class and gender) on family life. Students learn about families in other cultures and current issues facing families. Prerequisite: SO 101; Every Year, All

SO 260 Social Control and Deviance ( 3 cr .) This course covers classical and contemporary sociological theories of deviance as well as a discussion on the ways in which sociologists define the concepts of deviance and stigma. Course material covers a variety of social issues, which are situated within the intersection of deviance and race, social class, sexuality and religion. Topics include: privileged/underprivileged deviance, substance abuse and physical violence. Participants also look at the ways in which social behavior is formally and informally controlled through various sanctions and the implementation of public policies. Prerequisite: SO 101; Every Year, Spring

## SO 263 (UC) Sociology of the Aged (GT 263) (3 cr.)

This introduction to gerontology focuses on the myths and realities of aging explored through historic, demographic and sociological analyses of the conditions of old people in our society. The ways in which social and cultural factors enter into the aging process are also considered. Prerequisite: SO 101; Every Year, All

SO 264 Social Welfare Institutions (3 cr.) Problems of welfare in an industrial society; the system of public and private institutions that evolved to meet these needs; critical evaluation of their adequacy; strategies for change, e.g., community control, welfare rights movements, are explored. Prerequisite: SO 101; Every Year, Spring

SO 266 (UC) Population and Society (3 cr.) The components of population change births, deaths, migration and the importance of demographic trends for individual life changes are explored. Also discussed are the lasting effects of the Baby Boom generation, the migration to the Southwest, and changes in marriage patterns. Prerequisite: SO 101; Every Year, Fall

## SO 270 Program Planning and Administration

 (GT 270) (3 cr.) Program planning and administration of services to the elderly are considered, as well as models of needs identification, the process of problem analysis, styles of leadership and administrative dilemmas, and elements of grant proposal writing. Prerequisite: SO 101; Every Other YearSO 271 Public Order Crimes (CJ 271) (3 cr.) Approximately two-thirds of the inmates in U.S. correctional institutions have been found guilty of public order crimes, moral crimes, or crimes not likely to have a selfidentified victim. This course concentrates on crimes associated with such activities as illegitimate gambling, consensual sex, and the criminal use and sale of both legal and illegal substances. Prerequisite: SO 101 or CJ 283; Every Year, Fall

SO 272 (UC) Education and Society ( $\mathbf{3}$ cr.) Schools from kindergarten to the university as they relate to the community and the economic and political systems are considered. Also explored are the historical development of education; values imparted through education; the social process in the classroom; contemporary conflicts centering in the schools. Prerequisite: SO 101; Every Year, Spring

SO 280 (UC) Illness and Disability (3 cr.) This course examines the ways in which society shapes our understanding, experience and definitions of health, illness and disease. Topics include the social factors related to disease such as age, gender and social class; the social roles of medical practitioners and patients; labeling and treatment/mistreatment of the ill and disabled; changing definitions of illness; and the politics of disability. Prerequisite: SO 101; Every Other Year, Fall

SO 283 Crime and Society (CJ 283) ( 3 cr.) This course considers crime as a cultural phenomenon and a problem of social control. Topics include the nature of law, characteristics of the criminal justice system, types of crime,
as well as the critical evaluation of theories of crime. Prerequisite: SO 101; Every Year, All

SO 285 (UC) Protest and Change (WS 285) (3 cr.) This class presents in-depth explorations of American social movements with an emphasis on understanding the underlying societal factors that influence the emergence of each. The socioeconomic and cultural identities of those involved and the ways in which strategies, tactics, and outcomes are shaped also are addressed. Discussions cover, but are not limited to, the labor, civil rights, women's rights, gay rights, anti-war and environmental movements. Prerequisite: SO 101; Every Other Year

SO 292 Internship in the Community ( $\mathbf{3} \mathbf{~ c r}$.) The student devotes eight hours a week on-site in a public or private community agency and one hour a week in class. The position is tailored to the student's preparation and interests and to the needs of the agency. The student learns how an organization actually works, its relation to other organizations in the community, how it serves its clients, and the problems that confront it. Enrollment, limited to majors, is a commitment by the student to adhere to a high standard of attendance and responsibility. For majors only in the junior or senior year. Every Year, All

## SO 304 Sociology of Gender (WS 304) (3 cr.) This

 course focuses on how society constructs notions/images of femininity and masculinity and how these influence our lives. Participants look at cultural views of language, body and the media, as well as theoretical approaches to understanding the complexities of gender distinctions in our society. Prerequisites: two courses from SO; Every YearSO 305 Death, Grief and Bereavement (GT 305) (3 cr.) Death is studied from the perspective of social interaction between the dying person, professional caregivers and family members and loved ones. Attitudes and values about death, cultural components of grief, and the function of bereavement are examined. Particular attention is paid to the social organization of death work and dying in bureaucratic settings, such as hospitals and nursing homes, as opposed to the non-bureaucratic structure of hospice care. Prerequisites: two courses from SO, GT; Every Year, All

SO 307 Sociology of Sport (SPS 307) (3 cr.) This course includes the analysis of sport as a social and cultural institution and the interrelations between sport and societal subsystems. Students explore selected sociocultural aspects of sport and exercise, and analyze contemporary problems associated with sport, including race relations, the tradition and emergent role of females, leisure behaviors, aggression and violence, as well as political and economic concerns. Prerequisites: two courses from SO; Every Year, Spring

SO 310 Children: Social Issues and Policies (3 cr.) This course presents an overview of the social, economic and political factors that have influenced the historical experiences of children. The effects of the changing character of the American family, peer groups, the powers of the media, public intervention and welfare concepts are examined. Prerequisites: two courses from SO; Every Year, Fall

SO 311 Introduction to Social Work (GT 311) (3 cr.) This course provides students with an overview of social work as a helping profession. Beginning with a preliminary understanding of the historical development of social work, students learn how changes in social work theory and practice reflect larger societal changes. Course work familiarizes students with important social work issues and concepts and discusses their application in diverse social service and human service settings. Major or minor in gerontology, sociology, social services, criminal justice or psychology and at least junior standing. Prerequisites: two courses from SO, GT; Every Year, Fall

SO 312 Large-Scale Organizations (3 cr.) The effect of formalization both on the delivery of social services and on career opportunities and satisfaction is explored; studies of business corporations, schools, health and welfare agencies, and the police are examined for effectiveness, and alternate structures are considered. Prerequisites: two courses from SO; Every Other Year

SO 315 Case Management (GT 315) (3 cr.) Case management is a process used widely throughout health and social services as a means of assessing, planning, coordinating, monitoring and evaluating the services needed to respond to an individual's health and/or service needs to attain the dual goals of quality and cost effective care. Students in gerontology, sociology, psychology, social services and criminal justice are likely to encounter the various roles or models of case management practice as they pursue careers in human services. This course provides a foundation for case management practice in various social service settings. Prerequisites: two courses from SO, GT; Every Year, Spring

SO 318 Therapeutic Recreation (GT 318) (3 cr.) This course of study includes the principles and practices of program planning for therapeutic recreation. The course covers analysis, assessment, design, implementation and evaluation of activities. Emphasis is on intervention, gerontological terminology, documentation, record keeping and resources. Prerequisites: two courses from SO, GT; Every Other Year

SO 325 Counseling Older Clients (GT 325) (3 cr.) Students are introduced to theories and models of effective communication with select members of an elderly population; practical aspects of communication of social serv-
ice worker with older clients, older parents, older patients and the terminally ill; interview and counseling techniques; and the role of social service worker, past and present. Prerequisites: two courses from SO, GT; Every Other Year

## SO 330 Perspectives on Violence (CJ 330) (3 cr.) This

 course explores the many ways that violence is viewed in our society. Topics include types of violence, empirical evidence of incidence, characteristics of violent crimes, offender motivation, victim profiles, and sociological and theoretical explanations. Prerequisites: two courses from SO, CJ; Every Year, FallSO 333 Drugs, Alcohol and Society ( 3 cr.) This analytical discussion-based course explores the use of drugs and alcohol in U.S. society. The emphasis is on drug and alcohol use and abuse as a social phenomenon. Students will explore issues such as the relationship of drug use to particular groups in society (age, sex, race/ethnicity), patterns of drug use and abuse, the promotion of drugs by the media, and drug and alcohol abuse in historical perspective. Students will also learn about drug categories, drug education, prevention and treatment, and about drug laws. Prerequisites: two courses from SO; Every Year, Spring

SO 335 Systems in Criminal Justice (CJ 335) (3 cr.) This course examines the criminal justice system, including law enforcement, the courts and the correctional system. Each aspect of the system is analyzed in terms of crime statistics, typologies and theoretical application. Prerequisite: SO 283 or CJ 283; Every Year, All

SO 355 Crime and Media (CJ 355) (3 cr.) Despite little direct contact with offenders or the criminal justice system people typically hold strong opinions about crimerelated issues. The goal of this course is to understand how media sources shape our attitudes and beliefs about crime and how we should respond to it. To this end, participants examine media involvement in constructing the reality of crime and justice. Prerequisites: two courses from SO, CJ; Every Other Year

SO 360 Sociology of Mental Illness ( 3 cr .) This course examines the ways in which society shapes our understanding of mental illness and mental health. It provides students with an overview of issues affecting the definition, causes, recognition and treatment of mental illness. The course is organized into five sections: 1 ) the major theoretical perspectives on mental illness; 2) symptoms of selected mental disorders; 3) the epidemiology of mental illness; 4) stigma; and 5) available treatment and lack of treatment for people with mental disorders. Prerequisites: two courses from SO, CJ; Every Year, Spring

SO 365 Aging: Problems and Policies (GT 365) (3 cr.) This course considers social problems associated with aging: particularly in the areas of health, housing, financing and family life and the governmental policies past, present and future that deal with these problems. Prerequisites: two courses from SO; Every Other Year, Spring

SO 375 Sociology of the Everyday ( $\mathbf{3} \mathbf{~ c r}$.) The course examines how everyday interactions both create and shape social reality. Through an examination of humor, embarrassment, street behavior, family behavior and work behavior, as well as interaction between acquaintances, friends and intimate partners, the course examines how we make up everyday reality as we go. Emphasis is placed on micro-level theoretical perspectives drawing from social psychology and symbolic interactionism. Prerequisites: two courses from SO; Every Other Year, Spring

SO 381 Evaluation Research (GT 381) (3 cr.) This course examines the research methods used to evaluate the effectiveness of organizations and programs in meeting their social service goals. Methods of research are examined in depth and students become acquainted with the components of meaningful program evaluations. Must be second semester junior or above. Prerequisite: SO 244; Every Year, All

SO 383 Sociology of Law (3 cr.) Students delve into the complex relationship between society and law. Does society create law, or does law create society? Society is itself a tangled web of laws turning would-be chaos into an organized bureaucratic existence. Participants use films, ethnographic work and an on-site courtroom observation project to explore and answer questions about the sociolegal world. Prerequisites: two courses from SO; Every Other Year

SO 385 Social Policy (GT 385) ( $\mathbf{3}$ cr.) This senior seminar is designed as the capstone course for students majoring in sociology, social services and gerontology. Social policy is examined as the process by which specific societal problems are identified, researched, and translated into social action. Students in this course complete a senior thesis and senior presentation on a social policy area of their choosing. For majors only in the senior year. Every Year, All

SO 392 Internship in the Community ( $\mathbf{3} \mathbf{~ c r}$.) The student devotes eight hours a week on site in a public or private community agency and one hour a week in class. The position is tailored to the student's preparation and interests and to the needs of the agency. The student learns how an organization actually works, its relation to other organizations in the community, how it serves its clients, and the problems that confront it. Enrollment, limited to majors, is a commitment by the student to
adhere to a high standard of attendance and responsibility. For sociology majors in their junior or senior year. Every Year, All

## Courses offered as needed

SO 245 Community: Place, Sentiments, Structure
( 3 cr.) Prerequisite: SO 101
SO 300 Special Topics ( 3 cr ) Prerequisites: two courses from SO
SO 382 Field Research Methods (3 cr.)
SO 390 Politics and Urban Change (PO 390) (3 cr.) Prerequisite: SO 101 or PO 131

## Spanish (SP)

SP 101 Elementary Spanish I (3 cr.) Spanish as a spoken and written language is introduced in this course, which includes intensive drills in the basic structures of the language. Elementary reading material is used for vocabulary building, analytical exercises and discussion. Students who have three or more years of high school Spanish with grades of B or above may not take this course for credit. Every Year, Fall and Spring

SP 102 Elementary Spanish II (3 cr.) This course is a continuation of SP 101. Prerequisite: SP 102 placement or SP 101. Every Year, Fall and Spring

SP 201 Intermediate Spanish I (3 cr.) This course includes conversational practice and a review of grammar. The four language skills listening, speaking, reading and writing are developed. Prerequisite: SP 102 or placement into SP 201. Every Year, Fall and Spring

SP 202 Intermediate Spanish II ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i s ~ a ~}$ continuation of SP 201. Every Year, Fall and Spring

SP 251 Short Story in Spanish (3 cr.) This course presents a study of the short story genre and its development in Spain and Spanish America, especially in modern times, including Chicano literature. A variety of short stories (moral lesson, anecdote, character story and magic realism) are analyzed. Prerequisite: SP 202; Every Third Year, Fall and Spring

SP 301 Advanced Spanish I (3 cr.) This course is designed to help the student develop oral and written language skills to a high degree of proficiency. Prerequisite: SP 202 or placement into SP 301. Every Year, Fall and Spring

SP 302 Advanced Spanish II ( $\mathbf{3} \mathbf{~ c r}$.) This course is a continuation of SP 301. Every Year, Fall and Spring

SP 312 Advanced Conversation ( $\mathbf{3} \mathbf{~ c r}$.) This course is designed to improve oral skills for non-native speakers. Prerequisite: SP 302; Every Year, Fall

SP 317 Approaches to Literary Genres (3 cr.) This course, taught in Spanish, is designed to familiarize students with general approaches to literature: how to read/talk about a poem as opposed to a play, etc. Students read and discuss, in Spanish, works from various genres. Prerequisite: SP 302; Every Third Year, Fall

SP 321 Masterpieces of Spanish Literature (3 cr.) Major literary productions of Spain are studied, including works by or selections from Lazarillo de Tormes, Garcilaso, Cervantes, Galdos and Lorca. Prerequisite: SP 302; Every Third Year, Spring

SP 329 Spanish American Literature from 1880 to Present (3 cr.) Representative selections of Spanish American writings since Modernismo are studied. Works of poetry, fiction and drama are analyzed in terms of their sociopolitical contexts as well as in terms of the dominant literary movements of the period. Prerequisite: SP 302; Every Third Year, Fall

SP 335 Nineteenth Century Literature of Spain (3 cr.) The romantic, realist and naturalist movements are studied. Prerequisite: SP 302; Every Third Year, Spring

SP 343 Culture of Spain ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ f o c u s e s ~ o n ~}$ the broad themes of politics, history, literature, philosophy, regional languages, religion, education, the media, art, music, architecture, ethnic diversity and traditions of Spain. By examining the past and present, students gain deeper insights into the Spanish character and world view. Instruction of this course is in Spanish. Prerequisite: SP 302; Every Other Year, Spring

## SP 348 Spanish Drama and Poetry of the Golden Age

( 3 cr .) This course focuses on readings and discussion of the works of Calderon de la Barca, Lope de Vega, and contemporaries. Prerequisite: SP 302; Every Third Year, Spring

SP 370 History of the Romance Languages (3 cr.) Students study the historical linguistic development of Spanish in comparison with the other Romance languages: Catalan, French, Italian, Portuguese, Rhetian, Sardinian and Romanian. Students also compare the modern dialects of Spanish. Prerequisite: SP 302; Every Other Year, Fall and Spring

## SP 371 Contemporary Literature in Spanish (3 cr.)

The novel, theater or poetry of contemporary Spain and Spanish America are studied. Prerequisite: SP 302; Every Third Year, Fall

SP 373 Latin American Cultures I (3 cr.) Selected topics of Latin American cultures from their Spanish and pre-Columbian roots to the end of Independence are studied. Readings are drawn from history as well as literature. Prerequisite: SP 302; Every Year, Fall

SP 374 Latin American Cultures II (3 cr.) Selected topics of Latin American cultures from the end of Independence to the present are studied. Readings are drawn from history as well as literature. Prerequisite: SP 302; Every Year, Spring

SP 376 The Spanish Caribbean ( 3 cr .) This course studies people, history and society as well as artistic and literary expression of Puerto Rico, Cuba and the Dominican Republic. Also, features of the Spanish language as spoken in the Caribbean are considered. Prerequisite: SP 302; Every Other Year, Spring

SP 401 Advanced Spanish Grammar (3 cr.) This culminating course, designed to increase and perfect the knowledge of students who possess a strong command of Spanish grammar, includes instruction in verb tense usage, sentence syntax, lexical choices and idiomatic usage. Exercises to solidify knowledge are used extensively. Prerequisite: SP 302; Every Other Year, Fall and Spring

SP 450 Senior Seminar ( $\mathbf{3} \mathbf{~ c r}$.) This seminar is devoted to an in-depth study of Don Quijote de la Mancha. The novel is read, discussed and analyzed in terms of the sociopolitical context and in terms of the dominant literature of the period. Prerequisite: SP 302; Every Year, Spring

## Sports Studies (SPS)

SPS 101 Introduction to Sports Studies (3 cr.) This course introduces students to the social, historical, cultural, economic and political importance of sport. Students become familiar with the growing role and influence of sport in business, health sciences and communications on the local, national and global stage. This course also introduces students to the study of sport and the interdisciplinary research being done by scholars from various fields. This is a required course for the sports studies minor. Every Year, Fall

SPS 105 Video Essentials (FVI 105) (3 cr.) This course introduces students to the fundamentals of electronic field production. Participants learn all major phases of video production: scripting, preproduction planning, basic single-camera field production and digital editing. There also is an emphasis on evaluating the effectiveness and success of the communication to determine whether the media achieves its goals. This course is designed for students concentrating in areas other than media production (i.e., public relations, media studies or a program outside the School of Communications). Students concentrating in the media production track must take FVI 210 and FVI 212 as their introductory media production courses, and not SPS/FVI 105. Journalism majors may use SPS/FVI 105 in place of

JRN 105. Sports Studies minors should register for the section cross-listed as SPS 105. Every Year, All

> SPS 201 Medical Aspects of Sport and Activity (AT 201) (3 cr.) This course is geared toward students who want to work in a sports-related field (i.e., coaches, journalists and managers). It provides a view of a variety of sports medicine-related topics, including common sports injuries, an introduction to sports psychology and current events in sports medicine. Students cannot receive credit for both AT 201 and AT 214. Prerequisites: one group: BIO 101-101L; BIO 105-105L; BIO 106-106L; CHE 101-101L; PHY 101-101L; BMS 110-110L; BMS 117-117L; BMS 118-118L; SCI 101101L; SCI 102-102L; SCI 105-105L; Every Year, Fall

SPS 224 Sports Law (LE 224) (3 cr.) Sports Law is a growing and evolving area of law, affecting all those who play, officiate, or watch sports. Legal issues involve athletes, athletic competition, athletic teams and leagues, fans, and sports in general, on the student, amateur and professional levels. Students will study the legal concepts surrounding sports, and learn to apply them to the issues that arise. Prerequisite: LE 101; Every Year, Spring

SPS 226 (UC) Baseball and Statistics (MA 226) (3 cr.) This course covers SABRmetrics: the study of standard statistical topics using data derived from baseball records, which, for many students, is more easily understood and more interesting than data from the business or science world. The course looks at both descriptive and inferential statistics along with probability. Descriptive statistics covers measures of central tendency, tables and graphs, the normal and binomial distributions. Inferential statistics explores sampling, confidence intervals, hypothesis testing, chi-square testing, and regression and correlation analysis. Students must have a satisfactory score on the placement test and possess a basic knowledge of baseball. Every Year, All

SPS 307 Sociology of Sport (SO 307) (3 cr.) This course includes analysis of sport as a social and cultural institution and interrelations between sport and societal subsystems. Students explore selected issues of sociocultural aspects of sport and exercise, and analyze contemporary problems associated with sport, including race relations, the tradition and emergent role of females, leisure behaviors, aggression and violence, as well as political and economic concerns. Prerequisites: two groups; SO 101; SPS 101; one course from SO; Every Year, Spring

SPS 311 Sports Public Relations (PRR 311) (3 cr.) This course provides students with an insider's look at sports events management. Students gain hands-on experience planning, budgeting and executing an event. Students have opportunities to work with Quinnipiac as well as professional sports teams. Every Year, Spring

SPS 325 Sports Economics (EC 325) (3 cr.) The primary focus of this course is professional sports; microeconomic foundations of sports economics, industrial organization of the sport industry, antitrust and regulation, financing sports stadiums, labor issues, and the economics of college sports. Prerequisite: EC 112; Every Other Year, Fall and Spring

SPS 352 History and Social Impact of Baseball (HS 352) (3 cr.) This course covers the role of baseball both as an agent and as a reflector of social change in America from the mid-19th century to the present. While developments and activities on the field are not ignored, greater emphasis is placed on events surrounding the game. Topics include the racism of the 1880s; the transition from a pastoral pastime to a billion-dollar industry; the role of baseball in the assimilation of immigrants; the development of the Negro Leagues and the All-American Girls Professional Baseball League; the Jackie Robinson experiment; the growth of unionization in the sport and the most recent Latino wave of players. Students explore how each of these developments is embedded in and reflective of the larger culture. Prerequisite: SPS 101; Every Year, Spring

SPS 361 Sports Reporting (JRN 361) (3 cr.) This course introduces students to coverage of sports for the news media and includes writing game stories and sports profiles. Prerequisite: JRN 260 or JRN 263; Every Year, All

## SPS 420 Sports, Media and Society (MSS 420) (3 cr.)

This class examines the social, political, economic and historical significance of the intersection of sports, media and society. Some of the questions this course examines include: What role have sports played in shaping cultures throughout history? What is the relationship between sports and media? How do sports, through the media, influence U.S. culture today? What is the role of sports media professionals in U.S. culture? This course is specifically designed for students interested in sports journalism, production and/or promotion. Prerequisite: MSS 101 or SPS 101; Every Year, Spring

SPS 488 Internship ( $\mathbf{3}$ cr.) Students have the option to participate in an internship with a sports-related organization. The fieldwork is jointly supervised by the cooperating organization or corporation and the director of the sports studies minor. The internship adheres to standard Quinnipiac University regulations and procedures regarding internships. Prerequisite: SPS 101 and approval of sports studies director; Every Year, All

## Courses offered as needed <br> SPS 240 Philosophy of Sport (PL 240) (3 cr.) <br> Prerequisite: PL 101

SPS 300 Special Topics in Sports Studies (3 cr.)

## Women Studies (WS)

WS 101 (UC) Introduction to Women's Studies (3 cr.) This team-taught interdisciplinary course uses lively discussion and compelling readings to consider women's studies in its broad outlines. The participants discuss sexuality, economic and political power, the female body, images of beauty, psychology of gender and the development of feminism through course materials that include novels, short stories, poetry, historical writings and political manifestos. Every Year, All

WS 210 Human Sexuality (PS 210) (3 cr.) This course focuses on human sexuality as it develops and changes throughout the lifespan, starting with prenatal development and ending with sexuality of the aging. Additional special topics include sexual dysfunction, sexual variance and the law. Prerequisite: PS 101 or PS 133; Every Year, Spring

WS 219 Women in Political Thought (3 cr.) Students explore different approaches to explain the status of women. Theoretical perspectives that students consider may include: liberal feminism, radical feminism, Marxist/socialist feminism, feminism of care, conservative feminism and global feminism, among others. Students critically evaluate political concepts such as freedom, equality, rights and oppression, as well as learn about how different thinkers have conceptualized gender, politics, power and the role of the state. The course requires careful reading, intensive class discussion and multiple writing assignments. Prerequisite: PO 101, PO 131, PL 101, PS 101, SO 101 or WS 101; Every Other Year

## WS 232 Women in the Criminal Justice System

 (CJ/SO 232) (3 cr.) This course examines the changing patterns of women's criminality, the experiences of women who are processed as crime victims, and the evolution of women's role in law, law enforcement and corrections. Prerequisite: SO 101; Every Year, FallWS 235 (UC) Literature by Women (EN 235) (3 cr.) Virginia Woolf wrote that, for most of history, Anonymous was a woman. The last two centuries have energetically recovered the writings of women and shifted them into equal stature with literature written by men. With the question of what it means to extract a canon of literature defined by gender as its center, this course allows students to consider the ways in which women have contributed a language and form to the literary tradition. In particular, the course explores the process by which this literature, often written from the margins of experience, has shaped how we read today. Varied female authors are discussed, including Woolf, the Brontës, Emily Dickinson, Zora Neal Hurston, Sylvia Plath, Toni Morrison, Sandra Cisneros, Jamaica Kincaid, Leila Abouzeid, and Maxine Hong Kingston, among others. Prerequisite: EN 101 or EN 102H; Every Year, Fall

WS 250 Gender and the Law (LE 250) (3 cr.) This course focuses on legal issues regarding gender, including the differential treatment of women and men in the legal system, and contemporary responses to gender issues in society. Every Other Year, Spring

WS 255 (UC) Sociology of Families (SO 255) (3 cr.) In this introductory course, students study families in the U.S. Topics include the ways in which families have evolved over time and the effect of economic and social factors (such as race, class, and gender) on family life. Students learn about families in other cultures and current issues facing families. Prerequisite: SO 101; Every Year, All

## WS 262 (UC) Psychology of Women (PS 262) (3 cr.)

 This course presents a study of sex and gender. Issues of women's development are surveyed: socialization, menstruation, self-concept, menopause, productive and reproductive roles and the changing conceptions of femininity and masculinity. Prerequisite: PS 101; Every Year, FallWS 265 Sociology of Work (SO 265) (3 cr.) This course considers the meaning of work in industrial society for blue-collar and white-collar workers; trends in the occupational structure, individual dreams and the opportunity structure. Particular occupations may be selected for intensive analysis through empirical studies, literature and observation. Prerequisite: SO 101; Every Other Year

WS 285 (UC) Protest and Change (SO 285) (3 cr.) This course presents a systematic exploration of the causes and conditions of major social changes. Social movements such as the civil rights and women's movements are studied in terms of their capacity to respond to and generate additional change. Prerequisite: SO 101; Every Other Year

WS 287 Women and Public Policy ( $\mathbf{3}$ cr.) Students examine the major public policy issues affecting gender relations in the U.S. today, including: reproductive rights and abortion, labor policy, welfare policy, sexual and domestic violence. Students discover the process by which issues of importance to gender equality have historically emerged on the public agenda, the ways in which policy debate is shaped once an issue becomes a public problem and the competing policy paradigms surrounding these controversial policy issues. Prerequisite: one course from PO, WS level 200; Every Other Year

WS 301 Seminar in Women's Studies ( $\mathbf{3} \mathbf{~ c r}$.) This seminar provides an opportunity for students to explore a subject (for example: 20th-century women poets, feminist issues from a global perspective) on an advanced level through interdisciplinary readings. Feminist theory is used to analyze materials that cover literature, psychology, history, political science, sociology and communications. Students are encouraged to take responsibility
for making decisions about how the material is taught, and for working together to own the experience of scholarship. This course is required of women's studies minors. Junior or senior status is required. Prerequisite: one course from WS level 200; Every Other Year, Spring

## WS 304 Sociology of Gender (SO 304) (3 cr.) This

 course focuses on how society constructs notions/images of femininity and masculinity and how this influences our lives. Students look at cultural views of language, body and the media, as well as theoretical approaches to understanding the complexities of gender distinctions in our society. Prerequisites: two courses from WS; Every YearWS 308 Women in America, 1770-1920 (HS 308) ( $\mathbf{3} \mathbf{c r}$.) This course covers the experience of women in America before 1900 . Women's work in the family and community is stressed. Individual research is required. Every Year, All

WS 309 Women in America: 1920-Present (HS 309)
( 3 cr .) This course covers the experience of women from the beginnings of the jazz age to the end of the century. Every Year, All

## WS 310 Cross-Cultural Perspectives on Gender, Sex, and Sexuality (AN 310) ( 3 cr.) This course introduces

 students to the social and cultural constructions of gender, sex and sexuality around the world. Students discover the way anthropologists approach these topics. They explore the constructions as they relate to notions of biology, family, households, work, migration, inequality/ inequity, economics and class status, violence, and race and ethnicity. Discussions focus on what gender, sex and sexuality are, what they mean and how they theoretically and practically matter as categories. Prerequisites: 6 credits from AN or SO; Every Year, FallWS 311 Diversity in the Media (MSS 311) (3 cr.) This course examines the role of media in the construction of social categories such as gender, race, class and sexual orientation, focusing primarily on the first two. Students learn about the media as one of a number of social institutions including religion, education and family, which influence our understanding of cultural difference. The course presents a variety of perspectives that address diversity in relation to both print and electronic media, emphasizing popular culture. Media diversity issues are analyzed in relation to ownership, representation, audience reception, and the media workforce. Junior standing required. Prerequisites: WS 101, MSS 101 or JRN 160; MSS 220; Every Year, Spring

WS 315 Women Artists (AR 315) ( $\mathbf{3}$ cr.) This art history course focuses on the lives and artwork of women such as Hildegard von Bingen, Mary Cassatt, Frida Kahlo and Georgia O'Keefe. Prerequisites: AR 102, AR 103, AR 104 or AR 105; Every Year, Spring

WS 335 Images of Women in Psychology and Literature (EN/PS 335) (3 cr.) This seminar considers the ways in which psychology and literature depict the female experience. Using readings in both traditional and feminist psychological and literary theory, the course analyzes literary texts by and about women. Topics include: gender and genre, female identity formation and the minority experience. Prerequisites: PS 101; one course from EN level 200; Every Other Year, Fall

WS 338 American Literature by Women of Color (EN 338) (3 cr.) This course presents a study of the diverse literary traditions, themes and narrative strategies employed by non-traditional American women. The ways race, ethnicity and gender affect form, content, language and style of the literature are examined. Writers include: Silko, Erdrich, Morrison, Walker, Angelou, Giovanni, Tan, Kingston, Yamamoto, Cisneros and Viramontes. Prerequisite: one course from WS level 200; Every Other Year, Spring

WS 345 Media Audiences (MSS 345) (3 cr.) This course examines popular, institutional and academic perspectives on media audiences in the U.S. and abroad. Central topics include how people choose and interpret media content, how marketers and media producers perceive audiences and how media researchers attempt to understand audiences. The course also considers popular assumptions about media effects on audiences and includes an in-depth analysis of fan cultures. Prerequisite: junior standing and either WS 101 or MSS 101, JRN 160 and MSS 220; Every Other Year, Fall

Courses offered as needed
WS 302 Women's Health and Aging (SO/GT 302) ( $\mathbf{3}$ cr.) Prerequisite: SO 263 or GT 263
WS 330 Philosophy and Gender (PL 330) (3 cr.) Prerequisite: one course from PL
WS 370 Intimate Partner Violence Seminar (PS 370) (3 cr.) Prerequisites: two courses from SO, WS, PS, CJ level 200

## Graduate Courses

## Accounting (AC)

AC 600 Accounting for Managers (3 cr.) This class includes an in-depth treatment of accounting theories and practices that managers use to plan, make decisions and control operations. Topics include cost-volumeprofit analysis, pricing, cost tracking and allocation, budgeting, process improvement and responsibility accounting. Every Year, Fall and Spring

AC 613 Financial Statement Analysis (3 cr.) This course provides an in-depth examination of the financial and governance disclosures contained in firms' SEC forms $10-\mathrm{K}$ and proxy statements. Topics include revenue recognition, income statement geography, usefulness of financial ratios, short-term liquidity analysis, cash-flow statements and corporate governance. The accounting for and analysis of receivables, inventories, plant assets and leases also are covered in depth. Instances of questionable financial reporting and the lessons that can be learned from them are addressed. Every Year, Spring

## Biology (BIO)

BIO 500 Writing and Science ( 3 cr .) This course reviews how scientific results and ideas are communicated and reviewed. Course content includes the storage and retrieval of scientific information, data presentation (table, figures, graphics), the writing of reports and papers as well as the preparation of publications for peer review. Copyright, patent law and the ethical issues involved in scientific communication also are considered. Assignments include oral and written presentations and attendance at assigned seminars and meetings. Every Year, Fall

BIO 515 Advanced Biochemistry ( 4 cr.) This course offers advanced insights into major areas of biochemistry, including the structure and function of biological molecules, cell and membrane structure and function, bioenergetics and enzyme function, and cellular metabolism. This is a suitable prerequisite for many graduate courses. Every Year, Fall

BIO 541 Evolution (4 cr.) This course examines the mechanisms of evolutionary change and surveys the evolutionary and phylogenetic history of life on earth. Because evolution is often a focus of social debate about ways of knowing and about the nature of humanity, students also explore the history of this debate and its influence on society. Lastly, because this course is
intended to provide training for teachers, students review new insights about How People Know and how to teach science so that students learn with understanding. Every Year, All

BIO 543 Freshwater Invertebrates of Connecticut ( $\mathbf{4} \mathbf{~ c r}$.)
This intensive classroom and lab study of the freshwater ecosystem in Connecticut emphasizes the ecology and taxonomy of invertebrate animals. Several field trips to selected localities provide opportunities for detailed observation and collection of living specimens for the lab. Every Other Year, Fall

BIO 543L Freshwater Invertebrates Lab (0 cr.) Lab to accompany BIO 543. Every Other Year, Fall

## BIO 545 Introduction to Marine Ecosystems (4 cr.)

This class presents an introduction to the major ecosystems and the factors that control their distribution. Classroom study of benthic and pelagic habitats from the littoral to the abyss is supplemented by field and laboratory investigations of shore marine and estuarine ecosystems. Emphasis is placed on developing skills requisite for using living and preserved marine organisms effectively in the high school or middle school biology lab. Prerequisite: BMS 370; Every Other Year, Fall

BIO 545L Marine Ecosystems Lab (0 cr.) Lab to accompany BIO 545. Every Other Year, Fall

BIO 548 Vertebrate Natural History (4 cr.) This course involves the observation, collection and identification of terrestrial and aquatic vertebrate animals. Emphasis is placed on life histories of local species. There are frequent field trips. This course primarily serves the graduate science requirements of MAT students. Students enrolling in this course are expected to complete course goals beyond those students enrolled in BIO 218. (2 class hrs., 4 lab hrs.) Every Year, Summer

BIO 568 Molecular and Cell Biology (4 cr.) This course examines the basic molecular biology of the cell, including the structure and composition of the cell's macromolecules, cell organelle structure, biosynthesis and regulation, and the mechanisms by which the cell communicates with its external environment and other cells. Every Year, Spring and Summer

BIO 571 Molecular Genetics ( 4 cr .) This study of the microbial genetic material includes DNA replication, DNA repair, isolation of regulatory and structural mutations, plasmids R factors, gene cloning techniques, and the regulation of the synthesis gene products. Emphasis is placed on new genetic techniques that are used in industry and medicine. Every Year, Fall

## BIO 605 Molecular and Cell Laboratories I (4 cr.)

These laboratories enable students to develop hands-on experience with the basic techniques in cell biology and molecular biology pertaining to DNA purification, modification and analysis. Prerequisite: BIO 571. Every Year, Spring

## BIO 606 Molecular and Cell Laboratories II (4 cr.)

These laboratories enable students to develop hands-on experience with the basic techniques in cell biology and molecular biology pertaining to protein purification and analysis. Every Year, Fall

## BIO 675 Comp Exam in Molecular and Cell Biology

( 2 cr ) The written comprehensive exam is a requirement of the non-thesis option for the MS degree in molecular and cell biology. Students must demonstrate both breadth and depth of knowledge by illustrating a command of the subject matter obtained from individual courses into unified concepts which link the student's own specialization to other fields of study. Students are encouraged to meet with the program director before registering for the comprehensive exam.

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Courses offered as needed
BIO 534 Industrial Microbiology/Biotechnology (4 cr.) BIO 546 Medical Zoology (4 cr.)
BIO 560 Protein Biochemistry and Enzymology ( 3 cr.)
BIO 562 Bioinformatics (3 cr.)
BIO 580 Animal Cell Culture ( 4 cr.)
BIO 589 Neurophysiology ( 3 cr.)
BIO 599 Computers in Science Teaching (3 cr.)
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## Biomedical Sciences (BMS)

BMS 510 Biostatistics ( $\mathbf{3 ~ c r . ) ~ T h i s ~ c o u r s e ~ c o v e r s ~ t h e ~}$ application of statistical techniques to the biological and health sciences. Emphasis is on mathematical models, collection and reduction of data, probabilistic models estimation and hypothesis testing, regression and correlation, experimental designs and non-parametric methods. Every Year, All

BMS 515 Advanced Pathophysiology I (3 cr.) Essential concepts of pathophysiology are emphasized. Normal function and selected disorders are studied especially as they relate to homeostatic and defense/repair mechanisms. Where appropriate the course includes clinical correlations of disease states with symptoms and physical findings. Every Year, Fall

BMS 516 Advanced Pathophysiology II (3 cr.) Concepts of pathophysiology are continued in this course, with an emphasis on selected disorders of the human system. Relationships between normal physiologic function, pathogenesis and pathology are discussed. The course
includes clinical correlations of disease states with physical and laboratory findings. Prerequisite: BMS 515; Every Year, Spring

BMS 517 Human Embryology ( 3 cr.) This course considers the fundamental processes and mechanisms that characterize the embryological development of the human organism. Knowledge of the developing human serves as a basis for understanding normal relationships of body structures and causes of congenital malformation. Emphasis is on clinical as well as classical embryology. Every Year, Fall

BMS 518 Pathophysiology ( $\mathbf{3} \mathbf{~ c r}$ ) Disease processes are studied as they relate to normal physiological and homeostatic mechanisms, basic pathology, pathogenesis, and defense/repair mechanisms. Where appropriate, the course includes some clinical correlations of disease states with signs, symptoms and lab findings. This course also is offered online in the spring. Every Year, Fall and Spring

BMS 522 Immunology ( $\mathbf{3}$ cr.) This course examines theories, techniques and recent advances in immunology and the latest knowledge on immunoglobulins, complement, the role of T and B cells in immune response study of allergy, tumor and transplantation immunology, and autoimmune diseases. The principles of immunology and how they apply to the diagnostic laboratory are discussed. Techniques studied include immuno- and gel-electrophoresis and fluorescent antibodies. Every Year, Spring

BMS 526 Epidemiology (3 cr.) This graduate-level course in epidemiology directs itself toward application of epidemiological principles. The course involves analysis of prospective and retrospective studies, cross-sectional studies and experimental epidemiology. Both communicable and chronic disease case studies are used, as well as case studies of occupationally induced diseases. The use of biostatistics in epidemiological studies is stressed. This course covers basic epidemiology principles, concepts and procedures useful in the surveillance and investigation of health-related states or events.
Every Other Year
BMS 530 Endocrinology ( $\mathbf{3}$ cr.) The objective of this course is to introduce the student to 1 ) an intensive understanding of the mechanism of hormone action; 2) the importance of the interrelationship among all hormones; 3) a detailed clinical situation dealing with hormonal aberrations; and 4) a theoretical and practical method for hormone assays. Every Other Year, Spring

BMS 531 Human Clinical Helminthology ( 4 cr .) This course provides students with a fundamental understanding of the etiology, pathology, symptomology, treatment and epidemiology of diseases caused by helminth
parasites. The course has both a lecture and lab component with the laboratory component emphasizing diagnosis. Every Other Year, Fall

BMS 532 Histology ( $\mathbf{4}$ cr.) This course is intended for pathologists' assistant students with a background in basic descriptive microscopic anatomy. The lecture material includes the microscopic and ultramicroscopic structure of cells, tissues and organs with emphasis on biochemical composition and distribution as related to functional mechanisms. The laboratory work involves the preparation of microscope slides of normal vertebrate tissues, including those of humans, for histological and histochemical studies as the student may expect to encounter in the clinical laboratory. Every Year, Spring

BMS 532L Histology Lab ( 0 cr.) Lab to accompany BMS 532. (3 lab hrs.) Every Year, Fall

BMS 533 Air, Water and Soil Microbiology (4 cr.) This in-depth graduate course examines the ecology of microorganisms in the water and air, as well as the medical and public health considerations of these organisms. Students explore the role of bacteria, algae, virus, protozoa and fungi in the air, soil and both natural and treated water. A lab is included that surveys standard techniques, as well as investigates innovative and experimental techniques in this exciting field of study. Every Other Year

BMS 535 Histochemistry ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i s ~ i n t e n d e d ~}$ for pathologists' assistant students with a background in basic descriptive microscopic anatomy. The lecture material includes the microscopic and ultramicroscopic structure of cells, tissues and organs with emphasis on biochemical composition and distribution as related to functional mechanisms. The lab work involves the preparation of microscope slides of normal vertebrate tissues, including those of humans for histological and histochemical studies as the student may expect to encounter in the clinical laboratory. Every Year, Spring

BMS 535L Histochemistry Lab ( 0 cr.) This lab accompanies BMS 535. Every Year, Spring

BMS 536 Endocrinology ( $\mathbf{3}$ cr.) This course introduces students to 1) an intensive understanding of the mechanism of hormone action; 2) the importance of the interrelationship among all hormones; 3) a detailed clinical situation dealing with hormonal aberrations; and 4) a theoretical and practical method for hormone assays. Every Other Year, Spring

BMS 542 Advanced Microbiology (3 cr.) This intensive classroom and lab study demonstrates the relevance and importance of microbiology in our society. Detailed studies illustrate the interactions between microorganisms and other organisms, especially man. The role of microbes in
the food industry, pathology, protection from disease, environmental issues, recombinant DNA research and biotechnology also are discussed. Every Year, Fall

BMS 552 Toxicology ( 3 cr.) Biochemical toxicology is the branch of science that deals with events at the molecular level in which toxic compounds interact with living organisms. It is fundamental to the understanding of toxic reactions and therapeutic agents, and for the assessment of toxic hazards by chemicals and related substances in the environment. This course deals with compounds exogenous to normal metabolism, as well as metabolic intermediates, hormones, trace elements and other materials found in the environment. It examines the absorption, distribution, kinetics and elimination of such substances. Particular emphasis is placed upon the effects of toxic materials on neurotoxicity, hepatotoxicity, genetic toxicology and chemical carcinogenesis. Every Other Year, Spring

BMS 561 Immunohematology ( 3 cr.) This course examines the current concepts of hematopoiesis, including red blood cell and white blood cell morphogenesis, blood banking, blood typing, donor selection, adverse transfusion reactions, ABO antigens/antibodies, crossmatching, the structure and function of the components of normal blood and bone marrow, pathological processes that occur in the blood and bone marrow, and the normal and abnormal events during hemostasis. Every Year, Fall

BMS 562 Blood Coagulation and Hemostasis ( $\mathbf{3}$ cr.) This study of the basic principles of hemostasis includes the vascular component, platelet physiology and function, coagulation factors/fibrin clot formation and fibrinolysis. Hereditary and acquired forms of hemorrhagic disorders and thromboembolic disease are examined in detail along with the test procedures for their diagnoses and the initiation of proper therapy. Every Third Year, Fall

BMS 563 Anemias ( $\mathbf{3} \mathbf{~ c r}$.) This study of those classes of disorders related to abnormal red cell pathophysiology includes both intracorpuscular and extracorpuscular defects. Erythropoiesis and basic red cell metabolism are briefly reviewed. Etiologies, differential diagnoses, and treatment of anemias are discussed in depth. Every Other Year, Fall

BMS 564 Fundamentals of Oncology ( 4 cr .) This course presents a study of the chemical and biological basis of carcinogenesis, natural history of human cancer, biochemistry of cancer, various aspects of experimental oncology including tumor immunology, and factors affecting survival and multiplication of cancer cells in the body. Delivery methods include weekly discussions on original research papers that correlate clinical studies with the molecular mechanisms presented in lecture. Every Other Year, Fall

BMS 565 Leukemia ( 3 cr.) This course includes indepth discussions with emphasis on the major forms of leukemia (ALL, CLL, AGL, CGL), current methods of blood component therapy and chemotherapy, the role of infections, immunological diagnostic advances, psychiatric and social aspects in patient management and recent advances in leukemia research. The purpose of the course is to enhance knowledge and understanding of those students who have had an introductory course in hematology and those who are actively involved in clinical or research hematological laboratories. Every Other Year, Fall

BMS 569 Antimicrobial Therapy ( 3 cr.) This course explores antimicrobial agents used to treat the underlying cause of infectious disease by inhibiting microbial growth and microbial survival. This class investigates the discovery, history and future of antimicrobial agents (mainly antibacterial and antiviral chemotherapeutic agents, as well as disinfectants and phage therapy), and the significance and limitations of antimicrobial therapy. Topics include the mode of action, the acquisition of resistance and the biochemistry and molecular biology of drug-resistant pathogens and the much-feared superbugs such as MRSA. Every Other Year

BMS 573 Mycology ( 3 cr.) The morphology, taxonomy and classification of fungi and yeasts of medical importance are studied in this class. Laboratory exercises include isolation and identification techniques of selected human pathogens. Every Other Year, Fall

BMS 575 Food Microbiology (4 cr.) This applied course in microbiology is concerned with the microorganisms involved in the manufacture and spoilage of foods. Major pathogens that may be transmitted via foods are discussed. Laboratory stresses both identification of food-associated organisms and standard microbiological procedures used to determine the quality and safety of foods. Every Year, All

BMS 576 Drug Discovery and Development (3 cr.) The material presented in this course encompasses the process of drug discovery and development. Topics covered include many aspects of drug development such as target identification, evaluation and screening, all phases of clinical development and post-marketing activities. The material presented is across drug classes, with a particular focus on psychoative and neurology compounds. Every Other Year, Fall

## BMS 584 Emerging and Re-emerging Infectious Dis-

 eases ( $\mathbf{3} \mathbf{~ c r}$.) This course discusses current topics related to the plethora of infectious agents that besiege us. Emerging bacterial, protozoal and viral diseases, whether strictly animal or human or zoonotic pathogens, represent an increasing threat to animal and human health.The course examines, defines and discriminates between emerging, re-emerging and other infectious diseases; defines host and agent characteristics and risk factors; and analyzes social, economic and international trade changes, improper use of antibiotics, and multidrug resistant infectious agents as factors of emerging diseases. Upper-level undergraduates may take this course with permission. Every Year, Fall

BMS 585 Outbreak Control ( 3 cr .) An outbreak or epidemic is the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time. Usually, the cases are presumed to have a common cause or to be related to one another in some way. Outbreaks occur frequently. Not every outbreak comes to light, but of those that do, public health agencies must decide whether to handle them without leaving the office, or spend the time, energy and resources to conduct field investigations. The most important reason to investigate is to learn enough about the situation to implement appropriate control and prevention measures. Other reasons include taking the opportunity to advance knowledge about the disease, agent, risk factors, interventions and other scientific issues; responding to public, political or legal concerns; evaluating a health program's effectiveness and weaknesses; and to provide training. When multiple agencies are involved, coordination and communication become even more essential but are more complicated than usual. Often the investigation takes place in the field, far from the conveniences and routines one counts on in the office. Under these circumstances, it is essential to have a systematic plan for conducting the investigation. Upper-level undergraduates may take this course with permission. Every Year, Fall

BMS 595 Transplantation Immunology ( 3 cr.) This course examines the current understanding of the major histocompatibility complex; the molecular basis of alloreactivity; and immunological mechanisms of allograft rejection, tolerance, and graft versus host disease. The objectives are: to understand the basics of the histocompatibility complex in relation to normal, disease and transplantation states, to understand the fundamental differences between immune responses to self antigens, foreign antigens, allo-antigens, and other non-self antigens, and to become familiar with the mechanisms underlying successful allogeneic transplantation and appreciate the concepts of immunosuppression and tolerance. Graduate level students are expected to complete a paper reviewing a current topic in transplantation. A basic understanding of immunology is desirable. Every Year, Spring

## BMS 596 Immunology of Infectious Diseases ( 3 cr .)

This graduate-level course examines the principal aspects of immune response to all types of infectious agents, with an emphasis on the immune system prima-
rily as a host defense system. Students explore how the dialogue between different types of pathogen and the host immune system works, as well as the cross talk between the different members of the immune response. Infection is an encounter between a microbe and the host. In contrast to topics such as pathogenic microbiology, this course is aimed at the host side of the interaction, both from the innate immune response and the acquired immune response. Autoimmunity, sometimes a side effect of infectious disease, also is discussed. Every Other Year, Fall

## BMS 598 Synaptic Organization of the Brain (3 cr.)

 Students study a variety of brain regions from both an anatomic and physiologic viewpoint to learn how these structures are organized at the synaptic level. The course includes a discussion of how these regions are associated with neurological disease. At the end of the class, students should: 1) understand the basic principles of neuronal functioning at the cellular and circuit level; 2) understand how the wide diversity of neural circuits seen in the brain generate specific functions in different regions; and 3) gain experience reading and interpreting scientific papers. Every Year, SpringBMS 599 Biomarkers ( $\mathbf{3} \mathbf{~ c r . ) ~ T e c h n o l o g i c a l ~ a d v a n c e s ~ i n ~}$ molecular biology have provided an opportunity to evaluate drug-disease relationships at the molecular and cellular level. The goal of this course is to introduce the concept of biomarkers and how they are used clinically. This course covers both theoretical concepts and practical applications of biomarkers. Topics include the rationale for biomarkers, study design, logistics of sample collection/storage, options and techniques for analysis, as well as current applications in health care, including drug safety, regulatory issues, ethical considerations and the future direction of biomarker applications. Every Year, Spring

## Courses offered as needed

BMS 502 Research Methods ( 4 cr .)
BMS 527 Pharmacology (3 cr.)
BMS 528 Advanced Clinical Parasitology (4 cr.)
BMS 529 Medical Entomology (4 cr.)
BMS 530 Human Clinical Protozoology ( 4 cr.)
BMS 542L Advanced Microbiology Lab (0 cr.)
BMS 570 Virology ( 4 cr.)
BMS 572 Pathogenic Microbiology (4 cr.)
BMS 572L Pathogenic Micro Lab (0 cr.)
BMS 574 Microbial Physiology (4 cr.)
BMS 578 Cellular Basis of Neurobiological Disorders (3 cr.)
BMS 579 Molecular Pathology ( 3 cr .)
BMS 581 Receptors and Regulatory Mechanisms (3 cr.)
BMS 583 Forensic Pathology ( 3 cr .)
BMS 591 The New Genetics and Human Future ( 3 cr.)

## Computer Information Systems (CIS)

CIS 600 Information Systems Strategy (3 cr.) Students develop the ability to analyze and identify opportunities to improve the effectiveness of organizations through the use of appropriate information technologies. Technologies that influence organizational strategies, structure, risks and processes are emphasized. Ethical, global and security issues also are covered. Every Year, All

CIS 620 Data Management ( 3 cr .) The concepts, principles, issues and techniques for managing corporate data resources are covered, including techniques for managing the design and development of large database systems. Data warehousing, data mining and database administration are emphasized. Students engage in hands-onlearning and work individually or in teams to complete a real-world project using contemporary data management tools and techniques. Every Year, Fall

CIS 625 ERP Design and Implementation ( 3 cr.) This course provides a detailed explanation of Enterprise Resource Planning (ERP), with a focus on SAP (systems, applications and products in data processing) software. The course focuses on how supply chains are implemented through electronic integration of sales logistics, production/material management, procurement and human resources. Every Year, Fall

CIS 627 Data Warehousing and Data Mining ( 3 cr .) This course focuses on accessing information across a network on a large variety of platforms based in a large variety of DBMS with the development of the interface to make the data warehouse experience as seamless and non-idiosyncratic as possible. Prerequisite: CIS 620; Every Other Year, Fall

CIS 628 Business Intelligence and Knowledge-Based Systems ( $\mathbf{3}$ cr.) This course focuses on business intelligence as a decision-support tool, knowledge management systems and the information requirements needed to effectively implement those systems. Students receive hands-on experience using business intelligence software. Every Other Year, Spring

CIS 630 Business Design and Object-oriented Analysis ( 3 cr .) This course considers systems-development methods, analysis and design techniques with a focus on object-oriented analysis and design. The application of systems analysis and design concepts using current tools, techniques and approaches is covered. Students engage in hands-on learning and work in teams to complete a real-world project using contemporary analysis and design methodologies and tools. Every Year, Spring

CIS 640 Communications and Networking ( 3 cr.) This course covers telecommunications fundamentals for all multimedia data interchange in business enterprises. Concepts, models, architecture, protocols and standards for the design, implementation, integration, security and management of digital networks are reviewed. Every Year, Fall

CIS 642 Network Design and Implementation (3 cr.) This course covers the development, design and implementation, and management of corporate networks, as well as topologies and their implementation. Security and management issues are examined. Current methods, practices and issues in the use of computer networks to enable communications are covered. Also considered are the physical and architectural elements and information layers of a communication network. International standards, network architectures, communication protocols, data link switching, routing and LANs, WANs and client/server environments are reviewed. Prerequisite: CIS 640; Every Other Year, Fall

CIS 675 Research in Information Systems (3 cr.) This course explores primary research methodologies utilized in evaluating the impact of information systems on organizations. Students will complete an Independent research project using primary data that they collect to analyze a significant issue impacting information systems organizations. Every Year, Summer

CIS 685 Emerging Information Technologies (3 cr.) This course covers current and emerging topics and practices in information technology. Topics vary as new technologies develop. Students work through various hardware, software and integration issues and explore emergent Internet standards, such as XML and web services. Every Other Year, Summer

CIS 690 Managing Information Technology Projects and Organizations ( 3 cr.) This course focuses on a holistic approach to IT project management. Planning, scheduling, organizing and managing projects are covered. Emphasis is on the project-management process and tools to prioritize and lead large IT projects. In addition, this course provides an understanding of computerized project-management tools. Every Year, Spring

CIS 691 Information Technology Capstone (3 cr.) This course is the capstone course in the MS in information technology program. A major project or thesis that demonstrates a comprehensive understanding is required. The project is an integrated, in-depth experience, applying concepts from the other courses within the program. A presentation of the project or thesis is required. Prerequisite: Minimum of 24 credits completed in the MS-IT program. Every Year, Summer

CIS 695 Enterprise Architecture (3 cr.) This course explores the strategic use of information systems and technologies for the evolving global marketplace.
Emphasis is on information technology architectures and system integration. Every Year, Summer

Courses offered as needed
CIS 650 Information Systems Security (3 cr.)
CIS 652 Advanced Topics in Information Systems
Security (3 cr.) Prerequisite: CIS 650
CIS 660 Electronic Commerce Implementation (3 cr.) CIS 662 Integrated Electronic Commerce Solutions (3 cr.)

## Economics (EC)

EC 600 Managerial Economics ( 3 cr .) This course considers the practical application of the tools of economic analysis to the solution of important business problems. An examination of analysis of demand, cost and output, market structure and pricing policies is included. Every Year, All

EC 641 Money and Banking ( 3 cr .) The course addresses the roles that money and banks play in the economy and the regulatory framework that delineates these roles. The course also discusses financial instruments and the behavior of interest rates. The structure and function of the Federal Reserve and the role of monetary policy in stabilizing the economy are examined. The course develops the varying monetary theories that fuel an ongoing debate over the effectiveness of monetary policy. In addition, international financial markets and their role in an increasingly more open and volatile world economy are explored. Prerequisite: EC 600 or EC 601; Every Other Year, Summer

EC 650 International Economics (3 cr.) This course provides a rigorous analysis of theory and practice in international trade. Topics include in-depth study of trade models-the Ricardian model, the HeckscherOhlin model, and the standard trade model-the instruments and the political economy of the international trade policies, monetary theory of trade, balance of payments, exchange rate systems, and international monetary systems. Prerequisite: EC 600; Every Year, Summer

## Courses offered as needed <br> EC 662 Economics Analysis and Law (3 cr.)

## Education (ED)

ED 500 Internship and Seminar I (1 cr.) This course provides the first-semester intern with supervision of the internship placement, as well as a weekly seminar that focuses on developing skills of reflective practice, mindfulness and intentional teaching. Taken in conjunction with ED 508 Classroom Environment, this course allows students to begin to acquire strategies for maintaining classroom environments that are conducive to learning. Admission to the MAT program is required. Every Year, Fall

ED 501 Internship and Seminar II (1 cr.) This course provides the second-semester intern with supervision of the internship placement, as well as a weekly seminar that focuses on developing skills of reflective practice, mindfulness and intentional teaching. Taken in conjunction with ED 525, this course allows students to study first-hand the issues surrounding diversity and multiculturalism in the school setting. Prerequisite: ED 500; Every Year, Spring

ED 502 Methods II: Teaching Biology (3 cr.) This course prepares students to teach biology on the secondary level. Central concepts, tools of inquiry, the structure of the discipline, as well as safety procedures and ethical treatment of living organisms are discussed. The Connecticut Common Core of Teaching as well as national and state standards for the teaching of science are a focus of instruction. Prerequisite: ED 524; Every Year, Fall

## ED 504 Methods II: Teaching English (3 cr.) This

 course explores pedagogical theories and their practical application to the teaching of English language arts on the secondary level. The course prepares the student to use a variety of strategies in the classroom instruction of reading, writing and the critical examination of literature. The Connecticut Common Core of Teaching as well as national and state standards for the teaching of English are a focus of instruction. Prerequisite: ED 524; Every Year, Fall
## ED 505 Methods II: Teaching History/Social Studies

 ( 3 cr ) This course provides the student with a theoretical and practical foundation for the teaching of history/social studies. It examines the issues, practices and materials involved with the study of the discipline. The Connecticut Common Core of Teaching as well as national and state standards for the teaching of history/social studies are a focus of instruction. Prerequisite: ED 524; Every Year, FallED 506 Methods II: Teaching Mathematics (3 cr.) This course is designed to prepare students to teach mathematics on the secondary level. Central concepts, tools of inquiry, and the structure of the discipline are addressed through the development of instructional units and les-
son plans. The Connecticut Common Core of Teaching as well as national and state standards for the teaching of mathematics are a focus of instruction. Prerequisite: ED 524; Every Year, Fall

ED 507 Methods II: Teaching a World Language (3 cr.) This course examines the current philosophies, objectives and methods of teaching a world language. Students examine theories of second language acquisition and develop instructional units and lesson plans across the broad range of world language curriculum. The Connecticut Common Core of Teaching as well as national and state standards for the teaching of a world language are a focus of instruction. Prerequisite: ED 524; Every Year, Fall

ED 508 Classroom Environment (3 cr.) This course explores how to create a classroom environment that is conducive to learning for all students. The spectrum of theories of classroom discipline is explored with special emphasis on the theory of discipline with dignity.
Admission to the MAT is required. Every Year, Fall

## ED 509 Reading and Writing Across the Curriculum

( 3 cr .) This course presents an overview of whole-language development in the secondary grades with an emphasis on reading and writing across the curriculum. Students explore literacy strategies to help all students learn and apply current theories of integrated learning, i.e., the reading-writing-thinking connection. Attention is given to the particular needs of students for whom English is a second language. Prerequisite: ED 524; Every Year, Fall

ED 510 Adolescent Development (3 cr.) The major theories of human development are studied in order to provide an understanding of the normative and exceptional development patterns of adolescents and pre-adolescents. The social, emotional, cognitive and physical changes of adolescence are addressed from the perspective of their implications for education. Prerequisite: ED 500; Every Year, Spring

ED 514 Internship I (1 cr.) This course provides the first-semester intern in the five-year MAT program in secondary education with supervision of the internship placement, as well as a weekly seminar that focuses on developing skills of reflective practice, mindfulness and intentional teaching. Admission to the MAT program is required. Prerequisite: ED 413; Every Year, Fall

ED 515 Internship II ( $1 \mathbf{c r}$ ) This course provides the second-semester intern in the five-year MAT program in secondary education with supervision of the internship placement. Prerequisite: ED 514; Every Year, Spring

ED 521 Social and Philosophical Foundations of Education ( 3 cr .) This course is an inquiry into the institutional structures, social values and philosophical foundations of education. Teacher and student reflections focus on issues pertaining to the teaching-learning process, including freedom/authority/discipline; cultural diversity; multiplicity of learning modes; mind-body integration; community; alienation/violence; sexism/racism/elitism; and teacher/student roles. Admission to the MAT program is required. Every Year, Fall

ED 524 Methods I ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i n t r o d u c e s ~ s t u - ~}$ dents to theories and practices that have cross-discipline applications. Among the topics explored are constructivist teaching, interdisciplinary teaching, lesson development, authentic assessment, Gardner's multiple intelligence theory and Goleman's emotional intelligence theory. Permission of the program director is required. Prerequisite: ED 413 or ED 500; Every Year, Summer

ED 525 Diversity in the Classroom ( 3 cr .) This course helps students understand that teaching is a social enterprise laden with moral responsibility and that, as teachers, they must be willing to act as agents for social justice in their classrooms and in their schools. This course helps students acquire the dispositions, cultural knowledge and competencies to adapt their curriculum and instructional skills for culturally responsive classroom practice. Admission to the MAT program or permission of program director is required. Prerequisite: ED 500; Every Year, Fall and Spring

ED 532 Child Development and Psychological Theories for the Elementary Classroom (3 cr.) This course explores major theories of child development and learning related to elementary education. Students examine the developing child through the elementary school years, emphasizing the interaction between cognitive, social, emotional and physical development. Special consideration: the brain-mind connection and children as constructors of knowledge. Admission to the MAT program or permission of the program director is required. Every Year, Fall

## ED 534 Learning and Teaching in the Elementary

 Classroom ( 3 cr .) This course focuses on educational practice related to child development and learning theories within a constructivist philosophy. Topics addressed include: unit and lesson development, authentic assessment strategies, integrated curricula, and infusion of multicultural issues into elementary instruction. Prerequisite: ED 535; Every Year, SpringED 535 Elementary Internship and Seminar I (1 cr.) This course provides the first-semester intern with supervision of the internship placement, as well as a weekly seminar that focuses on developing skills of
reflective practice, mindfulness and intentional teaching. Taken in conjunction with ED 525 Diversity in the Classroom, this course allows students to study firsthand the issues surrounding diversity and multiculturalism in actual practice through their observations, reflections and participation in school settings. Admission to the MAT program is required. Every Year, Fall

ED 542 Cultivation, Design and Management of an Elementary Classroom (3 cr.) This course focuses on creating elementary classroom environments that foster learning, independence and appropriate behavior for elementary children. Management strategies for teachers as well as for students are covered. Applied behavior analysis is a focus of the course. Atypical as well as typical children's behaviors are addressed. Admission to the MAT program is required. Every Year, Fall

ED 543 Clinical Practice in Reading ( 3 cr.) This course provides teacher candidates in the elementary program with the opportunity to apply their knowledge and skills of early literacy instruction to small group or individual tutorial situations. Students are required to complete 15 hours of literacy instruction in a supervised setting. Instruction includes diagnostic assessment, preparation and implementation of lessons based on initial and ongoing assessment, case study preparation and final assessment reporting. Weekly seminar discussions focus on the analysis of the pedagogy provided in the clinical settings. Prerequisite: ED 544 or ED 436; Every Year, Fall

## ED 544 Developing Literacy in the Primary Grades

 ( 3 cr.) This course is designed to provide pre-service teachers with the knowledge of diagnosis, assessment and instructional strategies for the development of early literacy. Emphasis is on the development of teaching strategies necessary for the success of early readers and writers. Prerequisite: ED 535; Every Year, Spring
## ED 545 Elementary Internship and Seminar II (1 cr.)

 This course provides the second-semester intern with supervision of the internship placement, as well as a weekly seminar that focuses on developing skills of reflective practice, mindfulness and intentional teaching. Taken in conjunction with ED 547 Philosophy of Education, the course allows students to explore the historical underpinnings of current day practice and how philosophical assumptions and beliefs shape current practice. Prerequisite: ED 535; Every Year, SpringED 547 Philosophy of Education (3 cr.) The course helps students become familiar both with the realities of public schooling in the state of Connecticut and with a number of foundational approaches to education. The study of these foundational approaches is intended to help students understand that theory and practice are closely connected and that the former has a profound
impact on how teachers actually conduct their classrooms. Prerequisite: ED 535; Every Year, Spring

ED 550 Issues and Research in Education ( 3 cr.) This course introduces students to some of the primary genres of educational research action-based qualitative, theoretical and quantitative. In addition, the course begins to help students understand what constitutes good research and to recognize the link between theory and practice. Finally, the course helps students develop the tools and mindset of a teacher-researcher to help them become truly reflective practitioners. Prerequisite: ED 402, ED 413, ED 501 or ED 545; Every Year, Summer

ED 552 Teaching in the Inclusive Classroom ( 3 cr .)
Treatment of exceptional individuals throughout history and the importance of the values of societies regarding differences form the basis for students' understanding of special education from its inception to current practices. Topics of discussion include: history and philosophy, laws, guidelines and procedures related to providing special education; the needs of students with exceptionalities, including giftedness; the particular needs of students for whom English is a second language; and instructional considerations for students with exceptionalities in inclusive settings. From a philosophic perspective, students learn skills to include children with exceptionalities into their elementary classrooms. Prerequisite: ED 468 or ED 568; Every Year, Fall and Summer

ED 554 Internship and Seminar I (1 cr.) This course supports students in the five-year MAT program for elementary education in the first semester of their internship. Discussion and comparison of school experiences are shared in a seminar that accompanies the internship experience. Every Year, Fall

ED 555 Internship and Seminar II (1 cr.) This course supports students in the five-year MAT program for elementary education in the second semester of their internship. Discussion and comparison of school experiences are shared in the seminar that accompanies the internship experience. Prerequisite: ED 554; Every Year, Spring

ED 556 Teaching Literacy in Grades 4-6 (3 cr.) This course provides students with the knowledge of diagnosis, assessment and instructional strategies for the development of literacy in grades 4-6. Emphasis is on the development of teaching strategies necessary for the success of readers and writers in grades 4-6. Prerequisite: ED 436 or ED 544; Every Year, Fall

## ED 558 Elementary School Science: Content and

 Pedagogy ( 3 cr.) This course leads students to an understanding of science concepts and scientific inquiry at the elementary school level through active investigations with common phenomena and everyday materials.Topics include: inquiry-based science focused on national standards; increased knowledge of resources for science learning; and management considerations in such areas as material preparation, groupings and safety. Prerequisite: ED 534 or ED 440; Every Year, Summer

## ED 562 Facilitating the Arts in the Elementary

Classroom (2 cr.) This course focuses on the development of the teacher-as-facilitator in incorporating the arts into the elementary classroom. An emphasis is placed on the relationship of the arts to teaching and learning in other content areas. Students explore a variety of media, movement, music and theatrical skills for selecting materials and activities appropriate to a child's age/stage of development. Attention also is given to the music and art of many peoples, with particular emphasis on developing a repertoire representative of different cultures and languages. Prerequisite: ED 534 or ED 440; Every Year, Summer

ED 566 Elementary School Social Studies: Content and Pedagogy ( 2 cr .) This course provides elementary teacher candidates with information, strategies and knowledge on the pedagogy of teaching social studies. The course incorporates other disciplines with curriculum standards and expands views of civic education. Students work collaboratively and independently to build understandings of the field of social studies and learn how to teach it creatively and effectively in a diverse community. Prerequisites: ED 534 or ED 440; Every Year, Summer

ED 568 Teaching Mathematics in the Primary Grades (3 cr.) This course introduces students to the instructional methods and curricular materials used to enhance the instruction of mathematics in the primary grades. Students learn to develop lesson plans and assessment methods that positively affect the learning of mathematics in grades $\mathrm{K}-3$. Students are required to apply this knowledge within their field placement to better understand the relationship of theory and practice in the instruction of mathematics in the lower elementary grades. Prerequisite: ED 535; Every Year, Spring

## ED 569 Teaching Mathematics in Grades 4-6 (3 cr.)

This course introduces students to the instructional methods and curricular materials used to enhance the instruction of mathematics in grades 4-6. Students learn to develop lesson plans and assessment methods that positively affect the learning of mathematics in grades 4-6. Students are required to apply this knowledge within their field placement to better understand the relationship of theory and practice in the instruction of mathematics in the upper elementary grades. Prerequisite: ED 568; Every Year, Fall and Summer

[^1]tional settings-in particular the communication systems of the classroom, the school/family dynamic and the individual developing child. The course analyzes and considers instructional language and its impact on the classroom community, student learning and student behavior. Students focus on teacher communication with parent/guardian populations and its impact on student learning. The course provides an understanding of the language development and language acquisition of the developing child as a basis for reading/language arts instruction and diagnosis including the language acquisition and development in the English Language Learner (ELL) student. Prerequisite: ED 436 or ED 544; Every Year, Fall and Summer

ED 582 Special Education ( 3 cr .) This course focuses on the characteristics of students with exceptionalities as well as methods of meeting these students' educational needs in the general education classroom. The course is concerned with providing prospective teachers with an understanding of the growth and development of students with disabilities as well as students with particular gifts and talents. Prerequisite: ED 501; Every Year, Fall

ED 588 Teaching in the Middle Grades ( 2 cr .) This course focuses on the instructional methods, curricular materials and classroom environment needed to increase the academic motivation and achievement of middle school students. Secondary preservice teachers have the opportunity to explore middle school philosophy and learn about the social, emotional, physical and intellectual growth these early adolescents experience as they transition from childhood to the more complicated world of adolescence. In addition, students explore the delicate balance between maintaining high standards and providing the close, supportive relationships that middle grades students need to thrive. Prerequisite: ED 413 or ED 501; Every Year, Summer

ED 601 Student Teaching and Seminar ( 6 cr.) This 10week student teaching placement at the elementary, middle or secondary level allows students to demonstrate the skills, understandings and dispositions needed to assume full responsibility as a classroom teacher. The seminar is designed to assist students in the attainment of their first teaching position. Prerequisite: ED 501 or ED 545; Every Year, Spring

## ED 603 Student Teaching under a DSAP ( 6 cr.) This

 course is designed for students who are teaching under a Durational Shortage Area Permit (DSAP) issued by the Connecticut State Department of Education. Students receive supervision and support from a University supervisor on a regular basis during the first semester of the academic year and as needed throughout the second semester. Prerequisite: Permission of the program director. Every Year, AllED 614 Elementary Education Internship III (1 cr.) This course provides the five-semester MAT student in the elementary education program with an optional fulltime internship in an elementary school. The internship occurs during the fall semester of the student's second year of study. Prerequisite: ED 545; Every Year, Fall

## ED 615 Elementary Education Internship IV (1 cr.)

 This course provides the five-semester MAT student in the elementary education program with an optional fulltime internship in an elementary school. The internship occurs during the spring semester of the student's second year of study. Prerequisite: ED 614; Every Year, SpringED 616 Secondary Education Internship III (1 cr.) This course provides the five-semester MAT student in the secondary education program with an optional full-time internship in a secondary school. The internship occurs during the fall semester of the student's second year of study. Prerequisite: ED 501; Every Year, Fall

ED 617 Secondary Education Internship IV (1 cr.) This course provides the five-semester MAT student in the secondary education program with an optional full-time internship in a secondary school. The internship occurs during the spring semester of the student's second year of study. Prerequisite: ED 616; Every Year, Spring

ED 693 Research I (1 cr.) This course assists students in the development and design of a research study complete with methods of data collection and analysis. Prerequisite: ED 550; Every Year, Fall

ED 694 Research II (2 cr.) This course is intended as a culminating research course in which the work of the previous two semesters is brought to closure through the analysis of data and the writing of a research paper. Prerequisites: ED 550, ED 693; Every Year, Spring

## Courses offered as needed <br> ED 518 Inquiry Based Science in the Secondary Classroom (3 cr.)

## Educational Leadership (EDL)

## EDL 501 Teacher Leadership to Transform School

 Culture ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ i n v e s t i g a t e s ~ l e a d e r s h i p ~ c o n - ~}$ cepts and principles and related research findings and practices with an emphasis on how leaders can transform school culture and develop the school as a community of learners. The course helps teacher leaders understand leadership theory and behavior and how to promote positive school culture by building a sense of community, increasing the quality of collegial relationships and discourse, and establishing open and effective communica-tions. Theoretical concepts of leadership are integrated along with practical applications for teacher leaders.

## EDL 503 Leading the Instructional Program to

 Improve Student Learning ( 6 cr .) This course examines current curriculum designs and teaching/learning models and the leadership processes of assessing, developing, implementing and revising instructional programs to improve student learning. Case studies focus on how to improve achievement through analysis of curriculum development processes in schools, analysis of achievement data, professional development programming, student assessment systems and coaching teachers to improve instructional practices. Prerequisite: EDL 501EDL 505 Research-based Literacy Practices (3 cr.) This course provides an overview of research-based instructional and assessment strategies in reading and writing, stressing the link between research and practice to improve student learning. Primary genres of educational research in the field of literacy are examined including action-based, qualitative, theoretical and quantitative. The course helps teacher-leaders develop the tools and mindset of a teacher-researcher so that they may reflect on their own classroom practice.

EDL 509 Leading School Improvement ( 6 cr.) This course analyzes the characteristics of effective schools and the leadership theories and concepts related to the change process. Participants examine the application of these theories and concepts to the practice of improving the work of the school and the achievement of students. Case studies focus on the analysis of schools in need of improvement, the specific issues facing the schools, data analysis techniques, effective leadership practices, strategic planning, financing improvement plans, and evaluation processes. The role of teacher-leaders within the school improvement process is emphasized.

## EDL 511 Cycles of Inquiry within the Literacy

 Classroom (3 cr.) This course helps teacher-leaders understand the cycles of inquiry, a systematic approach to teaching and learning that includes the following components: knowing content standards, diagnosing student needs, setting and working toward long- and shortterm learning goals, backward planning from standards and assessments, investing students in their goals, teaching effectively and continuously analyzing data to ensure learning goals are being met. This course provides teacher-leaders with training and experience through complete cycles of inquiry within the literacy classroom to further develop their skills as master teachers. Teachers are provided a systematic approach for focusing the energy of a school on every child's growth as a learner and the means to improve student achievement. Teacher-leaders participate in interconnected conversations to understand student progress and promote stu-dent-centered accountability. Course assignments and activities support each candidate as a reflective practitioner and build the capacity for teacher-leaders to make a difference for every learner. Prerequisite: EDL 501

## EDL 513 Coaching Teachers of Literacy (3 cr.) This

 course provides students with training and experience in mentoring colleagues-novice or experienced teachersthrough a complete coaching cycle. Students actively participate in a coaching cycle that is designed to provide teachers with support over a period of consecutive days as they develop specific aspects of their teaching practice. Students develop the skills necessary to support those teachers through modeling lessons, co-planning and co-teaching lessons, conducting classroom observations and providing feedback to those literacy teachers to foster teachers as reflective practitioners. Ultimately, students explore the best practices in mentoring teachers to improve the teaching of literacy and to develop a peer-to-peer coaching network for inquiry, conversation, collaboration and support. Prerequisite: EDL 501EDL 515 Action Research in Literacy Leadership (3 cr.) This course provides an overview of the concepts and principles of conducting action research in an educational setting. Action research conducted in the field of literacy is reviewed and analyzed for purpose, methodology and outcomes. As a capstone experience, candidates design and implement action research in their school that involves working closely with peers on a project that is intended to improve the literacy skills of students. Prerequisites: EDL 505, EDL 513

## EDL 517 Cycles of Inquiry within the Mathematics

 Classroom ( 3 cr .) This course helps teacher-leaders understand the cycles of inquiry, a systematic approach to teaching and learning that includes the following components: knowing content standards, diagnosing student needs, setting and working toward long- and shortterm learning goals, backward planning from standards and assessments, investing students in their goals, teaching effectively and continuously analyzing data to ensure learning goals are being met. This course provides teacher-leaders with training and experience through complete cycles of inquiry within the mathematics classroom to further develop their skills as master teachers. Teachers are provided a systematic approach for focusing the energy of a school on every child's growth as a learner and the means to improve student achievement.Teacher-leaders participate in interconnected conversations to understand student progress and promote stu-dent-centered accountability. Course assignments and activities support each candidate as a reflective practitioner and build the capacity for teacher-leaders to make a difference for every learner. Prerequisite: EDL 501

EDL 521 Action Research in Mathematics Leadership ( 3 cr .) This course provides an overview of the concepts and principles of conducting action research in an educational setting. Action research conducted in the field of mathematics is reviewed and analyzed for purpose, methodology and outcomes. As a capstone experience, candidates design and implement action research in their school that involves working closely with peers on a project that is intended to improve the mathematics skills of students. Prerequisites: EDL 505, EDL 519

EDL 523 Leading Organizational Learning (3 cr.) This course examines the nature of effective professional learning in schools and how such learning contributes to sound classroom pedagogy, organizational renewal, reform efforts and gains in student achievement. The unique role of teacher-leaders in professional development is examined. Course topics include principles of successful professional development programming, organizational and social contexts that influence teacher learning, and the evaluation of professional development programs. Prerequisite: EDL 501

EDL 525 Diversity in the Classroom and School Community ( $\mathbf{3}$ cr.) This course develops an understanding and commitment to the position that teaching is a social enterprise laden with moral responsibility, and that teacher leaders must be willing to act as agents for social justice in their classrooms and in their schools. This course helps teacher-leaders develop the dispositions, cultural knowledge and competencies to adapt curriculum and instructional skills for culturally responsive classroom practices and to advocate for social justice at the school level.

EDL 527 Financing Program Improvement Initiatives ( 3 cr ) This course is an introduction to preparing and writing grant proposals for funding program improvement projects in schools based on identified needs. It includes specific terminology related to the grant-writing process and how to identify eligibility requirements. The course focuses on how to develop the grant narrative, budget and other components necessary for a successful proposal. Prerequisite: EDL 609

## EDL 601 Leading and Managing the Contemporary

 School ( 6 cr .) This course is an introduction to leadership and management theories and concepts and how school leaders apply them to address current problems and issues. Case studies focus on the development and analysis of school policies, practices and resources related to contemporary educational issues and the leadership and management styles required to implement them. The course includes a field-based experience involving the analysis of school and district policies, practices and resources related to a contemporary educational issue impacting teaching and learning. Every YearEDL 603 Leading and Managing the Instructional Program ( 6 cr.) This course examines current curriculum designs and teaching/learning models and the leadership processes of developing, implementing and supervising instructional programs to improve student learning. Case studies focus on how to improve achievement through analysis of curriculum development processes in schools, professional development programming, student assessment systems and analysis of achievement data, and instructional practices of teachers. Course includes a field-based experience involving classroom supervision of a specific instructional program across multiple grade levels. Every Year

## EDL 605 Leading and Managing School Improvement

( 6 cr ) This course analyzes the characteristics of effective schools and the leadership theories and concepts related to the change process. Emphasis is on the application of these theories and concepts to the practice of improving the work of the school and the achievement of students. Case studies focus on analysis of schools in need of improvement, the specific issues facing the schools, data analysis techniques, effective leadership practices, strategic planning, financing improvement plans and evaluation processes. Course includes a fieldbased experience involving the analysis of the school as a professional learning community and the development of a school improvement plan to address identified needs. Every Year

EDL 607 Internship in Educational Leadership (3 cr.) This field-based experience requires students to assume a leadership role and demonstrate application of the standards established by the Educational Leadership Constituent Council. The internship is planned, guided and evaluated cooperatively by the student, the University professor and the field site mentor, who is a licensed, practicing administrator. The course culminates in the development of an electronic portfolio, which represents the work during the internship. This course is graded pass/fail. Prerequisites: EDL 601, EDL 603, EDL 605; Every Year

EDL 609 Educational Program Evaluation (3 cr.) This course is an overview of the concepts and approaches in educational program planning and evaluation, with an emphasis on the responsibilities of school leaders to use program evaluation as a means to improve teaching and learning. The interpretation of data collected through the program evaluation process is emphasized so that decisions may be made to continue, restructure or terminate educational programs. Case studies focus on critiquing program evaluations and students are required to plan and conduct an assessment of an educational program in their school or district. Every Year

EDL 611 Educational Law ( $\mathbf{3} \mathrm{cr}$.) This course is a survey of federal and state statutes, regulations, case law, executive agency options and published research with respect to the rights of students and personnel and the corollary responsibilities of school and state agency officials. Case studies focus on actual legal issues brought to the courts by students, parents, teachers, administrators and the public. Every Year

EDL 613 Public School Finance (3 cr.) This course provides a comprehensive, detailed overview of the resource allocation process from the development of planning guidelines to the reporting of the results of school financial operations. Theoretical and practical treatments of the budget process are examined, with a focus on the budget as a tool to accomplish school goals. Case studies focus on how schools can utilize the budgeting process and both competitive and entitlement grants to reallocate and manage resources to improve educational programs and student learning. Every Year

## English (EN)

EN 509 Multicultural Literature ( $\mathbf{3} \mathrm{cr}$.) This course entails close reading of selected literary works, reflecting stories of the multicultural experience in American literature of the 20th century. These stories are fundamentally narrative: accounts of people and events during a specific time and place, dramatizing the themes of identity and cultural heritage. Emphasis is placed on understanding the differing visions of America and on analyzing major aspects of the American Dream. The diverse nature of America as reflected in these works includes the experience of: the immigrant, the African American, the Native American, and the Hispanic, among others. Every Other Year, Fall

EN 540 Classical Literature for Prospective Teachers ( 3 cr.) Selected texts from classical Greek and Roman literature that are often taught in high school are examined in this course. Epic poetry and classical tragedy are emphasized. Historical, literary and generic background is explored. Authors include Homer, Virgil, Aeschylus, Sophocles, Euripides and Ovid. Some attention is paid to 19th- and 20th-century British and American poems that draw heavily on classical legend or myth. Every Other Year, Spring

## EN 541 Poetry for Prospective High School Teachers

( 3 cr .) This course, designed for students who aspire to teach in secondary schools, presents an extensive study of the techniques, forms and history of poetry in English. A wide chronological range of poems is considered to bolster students' understanding of prosody, conventional poetic forms, free verse and the development of poetry from the Anglo-Saxon period to the present. Every Year, Fall

EN 551 Advanced Studies in Writing (3 cr.) This is a class in writing pedagogies and practices designed for MAT students who are planning on teaching students at the secondary level. The course covers historical movements and cases that have affected what we know about teaching writing. Participants explore the rich nexus between critical thinking and writing. The heaviest emphasis in the course is on practice: developing tools and techniques that have immediate application to the secondary classroom. Every Year, Spring

## EN 554 Literature for Youth and Adolescence (3 cr.)

Designed for prospective teachers of English (grades 712), this course examines young adult literature and the genre of adolescent literature. Authors may include Alice Childress, Robert Cormier, Paul Zindel, S.E. Hinton, Elizabeth Spears and Gary Paulsen. Students become familiar with some or all of the following: 1) stages of cognitive growth in reading development; 2) print and electronic sources on the literature; 3) appropriate text selection and assessment of readability levels; 4) motivation techniques that encourage reading and appreciation of literature; 5) design of reading study guides; and 6) categories within young adult literature. Every Other Year, Spring

EN 565 The American Renaissance (3 cr.) A study of the dialectical nature of literature of the American Romantics (mid-19th century) as reflected in the writings of Emerson, Thoreau, Whitman, Poe, Hawthorne, and Melville. Close literary analysis of each text and consideration of its cultural context. Every Other Year, Fall

## EN 580 Realism and Naturalism in American Fiction

 ( 3 cr ) This intensive study of realistic and naturalistic American fiction in the period from 1875-1925 is designed specifically for prospective teachers of high school English classes. Close reading of primary texts is supplemented by background readings in critical theory. Every Other Year, FallCourses offered as needed
EN 500 Special Topics in Literature ( $\mathbf{3} \mathbf{~ c r . )}$

## Finance (FIN)

FIN 600 Financial Analysis and Decision Making (3 cr.) This course introduces students to the theory and techniques of financial analysis with application to real-world problems and situations. Topics include risk and return, asset pricing, capital budgeting and corporate investment decisions, capital structure decisions, dividend policy, corporate merger, divestiture and takeover decisions. Every Year, All

FIN 610 Global Investments Analysis (3 cr.) This course focuses on the theory and practice of investment analysis in a global environment. Topics include relative, intrinsic and no-arbitrage valuation models, classical and modern theories of risk and return, introductory asset allocation and portfolio optimization techniques, market structure, and the role of institutions. The emphasis is on equity products, but fixed income and derivative securities also are covered. Prerequisite: FIN 600; Every Year, Fall

FIN 612 Fixed Income Investments (3 cr.) This course rigorously evaluates fixed-income securities, including default-free bonds, floating-rate notes and corporate bonds. Closely related financial instruments, such as forwards and futures on fixed-income securities, bond options and interest rate swaps are strongly emphasized. In addition to analyzing specific types of fixed-income securities, students examine the tools used in bond portfolio management. Prerequisite: FIN 600; Every Year, Fall

FIN 616 Derivatives ( $\mathbf{3}$ cr.) This course provides an indepth analysis of derivative securities (futures, options, swaps, and other contingent claims). Topics include valuation, hedging, market structure, trading strategies and the application of option pricing theory to agency problems, financial contracting and capital budgeting. Prerequisite: FIN 600; Every Year, Spring

FIN 630 Portfolio Theory and Practice (3 cr.) This course provides a rigorous examination of modern portfolio theory and practice. Emphasis is on the design of portfolio objectives, advanced asset allocation and portfolio optimization techniques, and the use of futures and options in portfolio management. Legal and ethical obligations also are discussed. Prerequisite: FIN 610; Every Year, Spring

FIN 690 Capstone Seminar in Financial Analysis (3 cr.) This course is the capstone seminar for students enrolled in the MBA/CFA track program. The course reviews and reinforces the entire CFA© Candidate Body of Knowledge (CBOK). Students completing the course are expected to sit for the CFA© Level I exam upon completing the course. Every Year, Spring

Courses offered as needed
FIN 604 Risk Management (3 cr.) Prerequisite: FIN 600
FIN 613 Management of Financial Institutions (3 cr.) Prerequisite: FIN 600
FIN 615 Emerging Financial Markets (3 cr.)
Prerequisite: FIN 600
FIN 665 Issues in Equity Compensation (3 cr.)
Prerequisite: FIN 600
FIN 670 Trading and Exchanges ( $\mathbf{3}$ cr.) Prerequisite: FIN 610

## Health Management (HM)

HM 600 Foundations of Health Care Management ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ e x p a n d s ~ t h e ~ s t u d e n t ' s ~ u n d e r s t a n d i n g ~}$ of: 1) the organization and functions of various health services organizations/systems and their interrelationships; 2) basic concepts of management planning, organizing, leading, staffing and controlling as they relate to issues critical to the mission and strategic positioning of the organization/system; and 3) the utilization of scarce resources to deliver optimum health care at reasonable cost. Every Year, Fall

HM 621 Quality Management in Health Care Facilities ( $\mathbf{3} \mathrm{cr}$.) This course provides a broad perspective on the fundamentals of measuring and assuring quality in health care facilities with a major emphasis on the application of industrial quality improvement techniques in health care. Students gain a working knowledge of accreditation organizations including the JCAHO and NCQA. The course explores in detail high priority efforts to reduce medical errors as well as the role of consumers in evaluating the quality of the health care services they receive. At the completion of the course, students are able to competently participate in health care quality endeavors at all levels of provider, payer, regulatory and accreditation organizations, while understanding the limitations of quality assessment methods currently in use. Every Year, Fall

## HM 630 Corporate Compliance in the Health Care

 Industry ( $\mathbf{3}$ cr.) This course addresses both the managerial and legal aspects of health care corporate compliance. Essential elements of a compliance program are presented with a focus on various pieces of federal legislation and enforcement initiatives conducted by the U.S. Department of Justice and the Office of Inspector General in the Department of Health and Human Services. Every Year, SpringHM 663 Integrated Health Systems and Managed Care ( 3 cr .) This course focuses on the integration of provider networks to create more efficient and better-coordinated health care systems. The impact of managed care activity on traditional health care provider roles is analyzed. Capitation and other managed care reimbursement techniques and the successes and failures of integrated health systems are examined critically. Prerequisites: HM 600, HM 621, HM 664; Every Year, Spring

## HM 664 Financial Management in Health Care

Organizations ( $\mathbf{3} \mathbf{~ c r}$.) This course equips the student with a basic understanding of financial management techniques as well as the application of financial theory to the practice of health care administration. Unique problems of financing health care organizations are covered, with special attention paid to using allocation deci-
sions to develop structured financial management systems. Every Year, Spring

HM 668 Legal Aspects of Health Care Delivery (3 cr.) This course provides a fundamental knowledge of law and the legal system, examining how they affect health care administration. Three areas of law of special importance to the health care setting are emphasized: tort law, contract law and administrative law. The course also examines the legal responsibilities and liabilities of an institution's governing board, its administrators, and its clinical staff. Finally, the course analyzes the legal and ethical rights of the patient and considers the patient's right to informed consent, confidentiality and commitment. Every Year, Spring

Courses offered as needed
HM 669 Organization and Management of
Long-Term Care Facilities (3 cr.)
HM 671 Health Policy and Politics (3 cr.)
HM 780 Internship I (degree Students only) (3 cr.)
HM 781 Internship II (degree students only) (3 cr.)
HM 783 Consulting Practicum I (degree students only) ( 3 cr )

## Health Science (HSC)

Courses offered as needed
HSC 546 Controversies in Health Care Ethics (3 cr.) HSC 562 Methods of Teaching Allied Health Science (3 cr.)
HSC 563 Microteaching ( 3 cr.)

## History (HS)

HS 562 Topics in American Constitutional History ( $\mathbf{3} \mathbf{~ r r}$ ) This course takes a detailed look at selected topics in American political/social history as they shaped and continue to shape American society. Topics are covered by integrating historical works with Supreme Court decisions to illustrate the evolution of constitutionalism and social thought. The topics vary, but every offering includes an initial component on the Declaration of Independence and the Constitution. Every Year, All

HS 564 Topics in East Asian History (3 cr.) Students are introduced to Chinese and Japanese civilizations from the dawn of history to the end of the 20th century. The course stresses the artistic, cultural and intellectual traditions that evolved in East Asia. Every Other Year, All

## HS 565 Topics in Geography for the 21st Century

(GP 565) ( $\mathbf{3}$ cr.) Students are introduced to the general structure and methodology of geographic study in a cultural setting. The interaction among environments, pop-
ulations, ways of life and locations are studied in a coherent, organized way. The distribution of people, food, energy and resources are analyzed, and there is an assessment of how to evaluate environmental potential, to deal with other peoples, to maximize available opportunities, and to determine which course of action to follow for progress and growth. Every Year, All

Courses offered as needed
HS 500 Special Topics in History (3 cr.)
HS 563 Dynamics of American Social Structure ( 3 cr .)
HS 566 Chinese Civilization ( 3 cr.)
HS 567 Popular Culture in American History (3 cr.)

## Interactive Media (ICM)

ICM 501 Theories of Interactive Media ( $\mathbf{3} \mathbf{~ c r}$.) This seminar grounds the creation of interactive content in a history of social theory, analysis of media, and application of these concepts to the design of usable and appropriate interactive systems. Participants read the significant literature, discuss the central issues, and create arguments that apply and synthesize these ideas. Every Year, All

ICM 502 Visual Design (3 cr.) This course covers the principles and practices associated with design as both a physical manifestation of an artistic idea and a practical expression for communicating messages through images, icons and other elements that form the visual structure common to interactive media. Students analyze the aesthetics of artistic expression and acquire interface design skills via application of Photoshop software to specific assignments. Every Year, Fall and Spring

ICM 504 Interactive Animation (3 cr.) This course covers the concepts and production elements that lead to composition of the two-dimensional interactive moving illustrations and interfaces designed to convey a specific message or idea as a stand alone explanatory device or as part of a larger narrative. Students completing this course analyze the development and present state of informational animation and learn how to produce twodimensional animations. Every Year, All

ICM 505 Interactive Techniques ( $\mathbf{3} \mathbf{~ c r}$.) This course introduces the foundational techniques of creating interactive content through a series of small exercises. Participants learn how interactive networks are organized, where to find the information necessary to create stan-dards-based systems, and gain elementary experience designing and implementing sites for the Web and other channels. Every Year, All

ICM 506 Writing for Interactive Media (3 cr.) Despite the changing media landscape, good writing skills are a necessity for professional communication. Students in this
class use written modalities to create, develop and hone a distinct, searchable written voice within a varied media environments. Much of professional social media work involves creating a consistent voice or presence for a person, organization or company. In this course, participants focus on how to accomplish (or enhance) this process using effective compositional techniques. Every Year, All

ICM 508 Media Production ( $\mathbf{3} \mathrm{cr}$.) This course covers the aesthetic and technical principles and practices that together work to create interactive visual and audio content. Students learn to digitally acquire still and video images and audioclips, edit the material and weave the components into multimedia narratives. Every Year, All

ICM 512 User Centered Design ( 3 cr .) This course covers the fundamental practices associated with interface design, navigation cues and strategies, information architecture and usability testing as part of the production of interactive content. The course uses the Web as the interactive medium to be examined. Students analyze the structure and presentation of information and prepare written assignments that examine specific design and structural issues. Student presentations consist of visual assignments that employ the principals garnered from the analysis and techniques learned during the course. Every Year, All

ICM 531 Graduate Internship ( $\mathbf{3}$ cr.) This course provides interactive media students with the opportunity to work in a professional setting to acquire additional skills and insights into their chosen area of study. Students completing this course are required to work at least 90 hours in a supervised environment. All internships must be approved by the graduate program director. Every Year, All

ICM 552 Internet Ethics and Policy ( $\mathbf{3}$ cr.) This course addresses topics relating to use of the Internet, including ethical issues, business and government policies, intellectual property matters concerning Internet-based content, international issues and differences between Internet and traditional media. The course also covers appropriate conduct as it relates to contracts and protections in the creation of Internet-based content. Every Year, All

ICM 590 Project Planning ( $\mathbf{3} \mathbf{~ c r}$.) The course focuses on the analytical skills required for successful project planning and its application to project management. The course is designed to provide instruction in the activities, tasks and techniques of project planning and management for developing interactive content. Readings, cases and simulations allow students to learn how these planning skills are applied to produce business/organizational results that require project management. A comprehensive project plan is developed that can be used for the master's project. Every Year, All

ICM 601 Master's Capstone: Portfolio or Project (3 cr.) Students completing the interactive media program are required to complete a capstone experience described as either a master's portfolio or project. The master's portfolio option requires students to create a professional online portfolio including a selection of the assignments, projects, presentations and written pieces completed over the course of the program. The course enables students to revise their work to bring it up to the highest professional standard possible. The master's project option requires students to create an original, functional project that examines a technical, aesthetic or conceptual problem using techniques and approaches within the scope of producing online content. Students must receive approval for the master's project topic from the program director. Every Year, All

ICM 602 Thesis ( $\mathbf{3} \mathbf{~ c r}$.) The thesis option requires students to research and write an original scholarly paper that explores an aspect of interactive media. Students must receive approval for the thesis subject from their appointed thesis adviser and the program director. Every Year, All

Courses offered as needed
ICM 503 Advanced Visual Design (3 cr.) Prerequisite: ICM 502
ICM 507 Advanced Interactive Techniques (3 cr.) Prerequisite: ICM 505
ICM 509 Advanced Media Production (3 cr.) Prerequisite: ICM 508
ICM 513 Advanced User Centered Design (3 cr.) Prerequisite: ICM 512
ICM 515 Advanced Interactive Animation (3 cr.) Prerequisite: ICM 504
ICM 516 Advanced Interactive Media and Animation
(3 cr.) Prerequisites: ICM 504, ICM 508
ICM 522 Social Media (3 cr.)

## International Business (IB)

IB 600 Managing in a Global Economy ( 3 cr.) This course helps students understand the global trends and issues that create business opportunities in foreign markets as well as the impact of the global environment on domestic business practices and opportunities. Students examine the economic, social and political issues that affect a firm's strategy for entering international markets and how cross-cultural issues affect internal business processes. Finally, they learn to recognize implications to business of dealing in foreign currencies, hedging and exchange-rate fluctuations. Every Year, All

[^2]IB 623 International Business Negotiation (3 cr.) Prerequisite: IB 600<br>IB 652 Multinational Management (3 cr.) Prerequisites: MBA 600, IB 600

## Journalism (JRN)

JRN 502 The Practice of Journalism (3 cr.) This course assesses the contemporary state of broadcast, magazine, online, print, radio, tablet and other forms of journalism to recognize the problems and prospects facing the profession as students begin formal training for their careers. Every Year, Fall

JRN 503 Analytics for News Reporting (3 cr.) Unpacking the volumes of data produced by public and private institutions throughout the world is one of the key challenges facing journalists. This course introduces students to the concept of big data and how to extract and deploy statistical information in news reports. Every Year, Fall

JRN 504 Reporting ( $\mathbf{3} \mathbf{~ c r . ) ~ T h e ~ c a p a c i t y ~ t o ~ g a t h e r ~ i n f o r - ~}$ mation and report the news remains at the core of the journalism profession. This course focuses on the fundamentals of news writing while also engaging students in emerging social media and other tools to present comprehensive news stories to all audiences. Every Year, All

JRN 521 Audio Storytelling ( $\mathbf{3}$ cr.) Writing for the ear requires skills in preparing scripts, natural sound and audio recording and editing. This course prepares students to compose stories for radio news and podcasts, with a focus on developing the style of conversational broadcast writing common to National Public Radio. Every Year, All

JRN 524 Broadcast Journalism (3 cr.) Visual news broadcast by networks and affiliates and in evolving formats online requires skills in both storytelling and technology for shooting and editing video. This course covers the essentials of shooting video, editing and field reporting and producing. Every Year, All

JRN 531 Graduate Internship ( $\mathbf{3} \mathbf{~ c r . ) ~ E x p e r i e n c e ~ i n ~ a s s o - ~}$ ciation with working professionals is essential to securing career opportunities. Students completing an elective internship to secure such experience are required to work at least 120 hours in a supervised environment, approved by the program director. Every Year, All

JRN 534 Story in Journalism ( 3 cr .) Students taking this course examine news writing in the context of journalism as a literary form. It explores the role of dramatic narrative and other storytelling techniques. Students study the works of influential nonfiction writers and engage in intense practice in nonfiction writing. Every Year, All

JRN 538 Reporting for the Web ( $\mathbf{3} \mathbf{~ c r}$.) This course pursues the principles and practices of producing news for online platforms, with emphasis on creating and assembling audio, graphics, images, interactive elements, text, video and social media applications into a single multimedia work of journalism. Every Year, Spring

JRN 539 History of Journalism ( $\mathbf{3}$ cr.) Students examine the origins and development of American journalism in this course. Emphasis is placed on significant persons, events and trends that have most influenced the profession as it is practiced today, thus acquainting students with the history of their chosen profession. Every Year, All

JRN 552 Media Law ( $\mathbf{3} \mathbf{~ c r}$ ) A thorough knowledge of laws and ethical behavior is essential to the professional practice of journalism. As such, this course covers the legal and ethical dimensions of media communications across platforms, with an emphasis on First Amendment, privacy and copyright issues. Every Year, All

JRN 560 Sports Reporting ( $\mathbf{3}$ cr.) Sports coverage has expanded beyond the immediacy of the games and now includes culture, health and other areas once seen as disconnected from the fields, gyms, rinks and half pipes where competition occurs. This course focuses on covering sports as both a game and an essential part of culture. Every Year, All

JRN 563 Sports Analytics (3 cr.) Deciphering the volumes of data produced by high school, college and professional sports team is an essential part of sports reporting. This course introduces students to the evergrowing volumes of statistics across major sports and shows how to transform such data into useful information. Every Year, Fall

JRN 564 Presenting and Producing Radio Sports (3 cr.) Radio remains an essential and effective medium for listening to games and engaging the audience with live talk shows that discuss teams, players, sports and the action of the competition. This course presents students with the principles and practices of radio sports. Every Year, All

## JRN 565 Presenting and Producing Television Sports

 ( $\mathbf{3} \mathbf{c r}$.) The task of capturing live sporting events and producing sports programming in general for television requires a range of skills and talents rarely evident to the public. This course prepares students to broadcast an event from the live truck to the studio. Every Year, AllJRN 566 Sports Feature Writing (3 cr.) Feature writers capture athletes when they are most noble, frail, vulnerable or heroic. They also capture the moment when a game means more than that. This course teaches stu-
dents to apply creative vitality to their ideas and writing on sports outside of game stories. Every Year, All

JRN 570 Feature Writing (3 cr.) News stories that reveal personality, explain how things work, reveal trends or otherwise represent an in-depth look at people, places and things are grouped under the heading known as the feature. Students completing this course are expected to pursue fresh and creative approaches to the genre. Every Year, All

JRN 572 News Documentary ( $\mathbf{3} \mathbf{~ c r}$ ) The complexities of producing the news documentary range from finding the right story to tell to finding the right visuals to help tell it. This course provides students with the skills to research, write, produce, shoot and edit nonfiction, longform projects rooted in history or current events. Every Year, Fall

JRN 580 Investigative Reporting ( $\mathbf{3} \mathbf{~ c r . ) ~ T h e ~ p u r p o s e ~ o f ~}$ this class is to prepare students to recognize investigative opportunities in all stories and to equip them with the practical skills necessary to succeed in investigative and project reporting, including knowledge of state and federal laws regarding access to governmental information. Every Year, All

JRN 590 Newsroom Clinical ( 6 cr .) This course focuses on advanced reporting for multimedia reports, broadcast news, news documentaries and magazine stories. Students produce daily, weekly and long-term stories in their area of expertise for the journalism department's tablet application, among other platforms. Every Year, All

JRN 601 Master's Project ( $\mathbf{3}$ cr.) Students completing the journalism program must complete either a master's project or thesis. The project option requires students to create an original, in-depth print, broadcast or multimedia journalistic piece. The graduate program director and dean must approve the topic. Every Year, All

JRN 602 Thesis ( $\mathbf{3} \mathbf{~ c r . ) ~ S t u d e n t s ~ c o m p l e t i n g ~ t h e ~ j o u r n a l - ~}$ ism program must complete either a master's project or thesis. The thesis option requires students to research and write a scholarly paper that explores an aspect of journalism. The graduate program director and dean must approve the topic. Every Year, All

Courses offered as needed
JRN 500 Special Topics in Journalism (3 cr.)
JRN 526 Editing for Print ( 3 cr .)
JRN 527 Covering Government and Politics ( 3 cr.)
JRN 532 Advanced Broadcast Journalism (3 cr.)
Prerequisite: JRN 524
JRN 533 Advanced Print Reporting ( 3 cr.)
JRN 536 Opinion Journalism (3 cr.)
JRN 542 Graduate Seminar ( 3 cr.)

## Management (MG)

MG 600 Business Ethics and Legal Environment (3 cr.) This course helps students develop an awareness of the legal issues for business organizations and apply a framework for ethical decision making. Students learn to identify ethical issues, apply various models of ethical decision making, and analyze ethical cases. Topics include assessing and analyzing the legal environment of business, identifying and managing stakeholder relationships, business and government relationships and corporate social performance. Every Year, All

MG 610 Managing People and Organizations (3 cr.) This course introduces students to the core topics and issues in organization theory and managing people. Students become familiar with both the language and practice of organization theory, including designing organizations, managing the organizational environment and understanding the relationships between tasks, technology, environment and organization structure. Issues related to motivation, leadership, organization culture, decision making and ethical leadership are presented. Interpersonal relationships are explored through an examination of the roles of power, politics and conflict in organizations as well as leader behavior, styles and leadership development. Every Year, All

MG 640 Strategic Sourcing and Supply Management ( 3 cr .) This course explores strategic sourcing and supply management in the industrial purchasing cycle for operating supplies, raw materials, components and capital equipment. Topics include strategic issues relating to the procurement decision process including supplier selection and evaluation, supplier development, make vs. buy decision, JIT purchasing, e-purchasing and the interrelationships between purchasing and other areas of the organization and the supply chain. Every Year, Fall

MG 641 Operations and Supply Chain Management ( 3 cr .) This course examines the design, operation and improvement of production systems that create and deliver a firm's primary products and services. The basic principles and the strategic issues pertaining to the role of the operation in a supply chain are covered. Topics include quality management, capacity management, inventory planning, facility location and layout, and lean systems. Prerequisite: MBA 610; Every Year, Fall

MG 642 Transportation Management (3 cr.) The course gives a broad yet thorough understanding of the role of transport in the supply chain. Topics include operations, current challenges and how different transportation modes interact to make a complete system. The major elements covered in this course are the respective terminals and facilities and the operation of air, rail, road, maritime and pipeline transport. Within each of these
elements, participants look at all parties involved in the management of the operations as well as the stakeholders. Every Year, Spring

MG 690 Strategic Management ( 3 cr .) This is a capstone course for MBA students taken in their last semester. Students learn concepts and theory relevant to the field of strategic management, as well as review and integrate the accumulated functional business knowledge from the other MBA core courses. The course covers such topics as internal and external firm analysis, industry analysis, value chain, competitive strategy, corporate and functional strategy, top management leadership and strategic performance evaluation. Emphasis is placed on developing critical thinking and decision-making skills through company analyses and simulated business exercises. Prerequisites: MBA 600, MBA 610, AC 600, FIN 600, MK 600, MG 610; Every Year, All

Courses offered as needed
MG 603 Project Management (3 cr.)
MG 625 Entrepreneurship (3 cr.)
MG 626 Business Plan Competition (3 cr.)
MG 630 Corporate Governance ( 3 cr .)

## Marketing (MK)

MK 600 Managing Customers and Markets ( 3 cr.) This course presents an introduction to the tactical and strategic considerations employed by the marketing manager in the formulation, administration and evaluation of marketing policies. Overall marketing goals, policies and programs are formulated with emphasis on planning and implementation. Every Year, All

MK 615 Managing Marketing Channels (3 cr.) This is an introduction to the design, evaluation and management of distribution channels. Topics include strategic issues in designing distribution channels, channel member roles, managing channel conflict, evaluation of channel performance, motivation of channel members, managing a hybrid mix of traditional and non-traditional channels, and channel logistics (transportation, inventory, materials handling and information management).
Prerequisite: MK 600; Every Year, Spring

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## Master of Business Administration (MBA)

MBA 600 Strategic Business Problem Solving ( 3 cr.)
Using case analysis, this course introduces students to a systematic approach to identifying and solving business problems. Classic strategic thought and current business developments situate the problems of business in both current and historical contexts. Emphasis is on analysis, communication and strategic decision making. Every Year, All

MBA 605 Business Communications ( 1 cr.) This business communications course helps students develop and refine their business writing and presentation skills. Students receive assessment and coaching to improve their writing as applied to business documents, such as executive summaries, case analyses, reports, letters and email. Presentation skills also are covered. Every Year, All

MBA 610 Business Decision Analysis (3 cr.) This course is an introduction to basic quantitative tools that enable managers to analyze data and make informed decisions. Topics include descriptive analysis of survey data, introductory probability, sampling and sampling distributions, hypothesis testing, simple and multiple regression, and decision analysis. Students apply the quantitative decision-making tools to business situations through cases. Every Year, All

Courses offered as needed
MBA 660 International Business Consultation and Planning ( 3 cr.)

## Mathematics (MA)

MA 541 Complex Variables ( 3 cr ) This course extends the concepts of calculus to deal with functions whose variables and values are complex numbers. Topics include the geometry of complex numbers, differentiation and integration, representation of functions by integrals and power series, and the calculus of residues. Prerequisites: MA 242, MA 305; Every Other Year, Fall

MA 565 Famous Mathematical Constants ( 3 cr .) This course is a tour of mathematics from the viewpoint of the well known constants e, pi and i. Topics are chosen from geometry, number theory, calculus and algebra. Every Third Year

## Courses offered as needed

MA 570 Number Theory ( 3 cr .)
MA 580 Euclidean and Non-Euclidean Geometry ( 3 cr .)
MA 583 Mathematics: Historical Insights (3 cr.)
MA 585 Mathematical Problem Solving (3 cr.)
MA 586 Discrete Structures ( $\mathbf{3} \mathrm{cr}$.)

MA 590 Issues in Pre-College Mathematics (3 cr.) MA 591 Introduction to Abstract Mathematics (3 cr.) MA 599 Technology in Mathematics Teaching (3 cr.)

## Nursing (NUR)

NUR 512 Information Literacy and Technology (1 cr.) This course introduces concepts of information fluency that are crucial to research and clinical decision making. Students learn sound search strategies, efficient use of electronic databases and how to critically appraise and use information effectively. Applications for mobile devices useful to clinical practice are explored. This course is offered in a distance-learning (DE) format. This course is graded on a pass/fail basis. Every Year, Summer

NUR 514 Epidemiology and Evidenced-based Practice ( 3 cr.) This course introduces epidemiologic principles, methods and data used in advanced nursing practice. Electronic databases and datasets are coupled with risk analysis statistics to critique evidence for health care approaches. The use of data to assess acute and chronic population health problems, to implement effective interventions addressing these problems, and to examine outcomes is emphasized. Every Year, Fall

## NUR 516 Health Policy and Organizational Systems

 (3 cr.) This course provides an introduction to critical thinking in areas informing advanced nursing practice. The evolution of the advanced practice role is examined. Students examine legal, ethical and political issues and analyze the impact and importance of these issues to health care policy, organization and financing. The advocacy role of the advanced practice nurse in broad health care policy is examined. Every Year, SpringNUR 518 Principles of Ethical Theory in Nursing (1 cr.) This course facilitates the student's formulation of a theoretical basis for ethical judgment at an advanced level of practice. Students analyze ethical theory and debate responses to ethical problems in advanced nursing practice. Every Year, Fall and Summer

NUR 520 Advanced Health Assessment I (3 cr.) This course presents the principles of performing a comprehensive health assessment and reporting the findings in a professional format. Attention is given to interviewing and physical examination skills. A laboratory component enables the student to master the techniques of holistic health assessment. Every Year, Fall

NUR 520L Advanced Health Assessment I Lab (2 cr.) This lab must be taken with NUR 520. (2 lab hrs.) Every Year, Fall

NUR 522 Advanced Health Assessment II (3 cr.) This course expands on assessment across the lifespan with attention to complex systems. The processes underlying diagnostic decision making are explored and a variety of simple office procedures such as suturing and splinting are taught. Prerequisite: NUR 520; Every Year, Spring

NUR 522L Advanced Health Assessment II Lab (2 cr.) This lab must be taken with NUR 522. (2 lab hrs.) Prerequisite: NUR 520L; Every Year, Spring

NUR 523 Pediatric Assessment (1 cr.) This course discusses holistic health assessment of newborns, infants, children and adolescents. Assessment of normal growth and development is presented, as is assessment of common pediatric primary care problems. Prerequisite:
NUR 522; Every Year, Summer
NUR 524 Principles of ECG Interpretation (1 cr.) This course provides a directed approach to understanding the principles and basic interpretation of electrocardiography as applied in advanced practice nursing. Every Year, Spring

NUR 526 Laboratory Diagnosis ( 2 cr.) This course introduces students to selected laboratory tests, including cardiac and pulmonary testing. Students discuss the use and interpretation of diagnostics in a variety of primary care problems. Attention to financial considerations in the selection of diagnostics is emphasized. Every Year, Summer

NUR 528 Principles of Radiography ( $\mathbf{2}$ cr.) This course provides basic principles of radiologic and imaging techniques. Recognition of common abnormal findings and indications and contraindications for various tests including cost analysis and availability factors are considered. Every Year, Spring

NUR 530 Advanced Pharmacology ( $\mathbf{3} \mathbf{c r}$.) This course introduces the student to pharmacological management and provides advanced knowledge of pharmacokinetics. Selected categories of drugs commonly prescribed for management of health care problems and health promotion within diverse communities are presented. Controlled substances and the potential for abuse are discussed as are the responsibilities and legalities of prescriptive authority. Every Year, Fall

## NUR 532 Special Topics in Adult Pharmacology (1 cr.)

 This course focuses on medication choices for adults with various health conditions. Drug effects and interactions in patients with multiple health issues are emphasized. Topics span the continuum from healthy adults to elders with multiple co-morbidities. Prerequisite: NUR 530; Every Year, SummerNUR 534 Special Topics in Family Pharmacology (1 cr.) This course focuses on the special pharmacological needs of infants, children and adolescents. Calculating appropriate medication dosages and medication delivery are key to this course. Topics include over-the-counter and holistically-focused medicinal therapies. Prerequisite: NUR 530; Every Year, Summer

## NUR 540 Health Promotion and Advocacy (3 cr.)

Health promotion, advocacy and mental health problems encountered in primary care settings are considered. A holistic approach to clients from adolescence to senescence is emphasized. Evidence-based guidelines and research are integrated to develop nursing strategies for health promotion and prevention. Every Year, Fall

NUR 542 Reproductive Health Problems in Primary Care ( $\mathbf{3} \mathbf{~ c r . ) ~ G e n d e r - r e l a t e d ~ p r o b l e m s ~ i n ~ p r i m a r y ~ c a r e ~}$ across the lifespan are the focus of this course. Selected alternative and complimentary therapies are included. Prerequisite: NUR 540; Every Year, Spring

NUR 610 Clinical Scholarship and Inquiry In Nursing ( 3 cr .) This course applies quality improvement methods to an identified practice problem. Building on prior knowledge of theories, research and statistics, students critique related evidence, identify a practice innovation, and determine outcome measures and cost implications. Prerequisites: NUR 514, NUR 516; Every Year, Fall

NUR 612 Leadership and Collaboration for Change in Health Care ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ f o c u s e s ~ o n ~ d e v e l o p i n g ~}$ advanced practice nursing leaders who are able to generate pragmatic responses to health care policy, systems and practice inquiry problems through a collaborative approach. Prerequisite: NUR 610; Every Year, Spring

NUR 612PBL Portfolio Synthesis Seminar (0 cr.) This seminar accompanies the final core class in the curriculum and allows students to integrate their learning through reflection on and evaluation of their portfolio. This course is graded on a pass/fail basis. Prerequisite: NUR 610; Every Year, Spring

NUR 614 Advanced Principles of Population-Based Health Care ( 3 cr.) This course examines policies impacting health across a broad spectrum of health care conditions and settings. Students discuss the contributions of nursing to population health. There are 40 fieldwork hours associated with this course. Every Year, Fall

NUR 616 Special Topics in Advanced Practice Nursing ( 3 cr.) This seminar allows each student to examine contemporary issues surrounding advanced nursing practice and population health within the context of the individual student's population health focus. There are 40 field-
work hours associated with this course. Prerequisite: NUR 614; Every Year, Spring

NUR 620 Common Problems in Primary Care (3 cr.) This course considers diagnoses of common problems encountered in primary care settings. Evidence-based, multidisciplinary management approaches to selected health problems also are discussed. Assessment and management of the selected problems include attention to cultural traditions, alternative treatments and socioeconomic policies that affect the delivery of care. The course is grounded by a holistic approach to care; case studies are used to promote clinical reasoning. Prerequisite: NUR 542; Every Year, Fall

NUR 621 Adult Health Practicum and Seminar I (3 cr.) This course integrates the principles of primary care nursing and includes a mentored practicum with a clinical seminar. Students apply advanced health assessment skills to provide health promotion and care for acute and chronic health problems across the adult lifespan.
Appropriate clinical documentation, case presentation and use of web-based clinical resources are emphasized. Every Year, Fall

NUR 622 Primary Care of the Child and Family I (3 cr.) This course focuses on health care of the child within the family system. Comprehensive assessment and management of common pediatric health problems encountered in primary care settings are addressed. Every Year, Fall

## NUR 623 Family Health Practicum and Seminar I

( 3 cr .) This course includes a mentored practicum experience and a clinical seminar. Health promotion and assessment of health problems within family systems are emphasized. Students learn primary care skills including appropriate documentation, differential diagnosis, case presentation and technology utilization with attention to cost-effective and evidence-based approaches to care.
Every Year, Fall

## NUR 624 Primary Care of the Child and Family II

( 3 cr .) This course emphasizes care of the older child and adolescent with specific medical needs. Routine obstetric care relevant to family practice is included. Primary care management is emphasized. Prerequisite: NUR 622; Every Year, Spring

## NUR 626 Complex Problems in Primary Care (3 cr.)

This course focuses on selected complex, urgent or less frequently encountered problems of primary care across the lifespan from adolescence to senescence. An opportunity to refine differential diagnosis and management of challenging health concerns in diverse populations is provided by the use of case studies. Prerequisite: NUR 620; Every Year, Spring

## NUR 627 Adult Health Practicum and Seminar II

( 3 cr .) This course includes a mentored practicum with clinical seminar and provides further opportunity for advanced nursing practice with diverse adult populations. Students refine primary care skills including appropriate documentation, differential diagnosis, case presentation and technology utilization with attention to cost-effective and evidence-based approaches to care. Prerequisite: NUR 621; Every Year, Spring

## NUR 629 Family Health Practicum and Seminar II

 ( 3 cr .) This course includes a mentored practicum experience and a clinical seminar. It provides an opportunity for nursing practice with families at an advanced level. Comprehensive assessment, clinical decision-making and strategies to facilitate health promotion and health restoration of individuals within family systems are emphasized. Prerequisite: NUR 623; Every Year, Spring
## NUR 631 Adult Health Practicum and Seminar III

( 4 cr .) This course includes a mentored clinical practicum with a clinical seminar, and provides an opportunity for practice with adults in diverse communities. Students are assisted to manage progressively complex and multifaceted health problems. Appropriate collaboration among disciplines is emphasized. Prerequisite: NUR 627; Every Year, Fall

NUR 633 Family Practicum and Seminar III (4 cr.) This course includes a mentored practicum experience and a clinical seminar. It provides continued opportunity for nursing practice with families at an advanced level. Comprehensive assessment, clinical decision making and strategies to facilitate health promotion and health restoration of individuals within family systems are emphasized. Prerequisite: NUR 629; Every Year, Fall

## NUR 635 Adult Health Practicum and Seminar IV

( 4 cr .) This course includes a mentored clinical practicum with a clinical seminar, and provides an opportunity for increased responsibility in interactions with patients. Students are expected to manage the process of patient care with increasing confidence, efficiency and accuracy. Cost-effectiveness, evidence-based practice, ethical dilemmas and cultural sensitivity are emphasized. Prerequisite: NUR 631; Every Year, Spring

## NUR 637 Family Health Practicum and Seminar IV

 ( 4 cr.) This course includes a mentored practicum experience and a clinical seminar. It provides continued opportunity for nursing practice with families at an advanced level. Comprehensive assessment, clinical decision making and strategies to facilitate health promotion and health restoration of individuals within family systems are emphasized. Prerequisite: NUR 633; Every Year, SpringNUR 639 Clinical Practice Immersion (1 cr.) This course provides an opportunity for focused clinical practice. Students may engage in a specific area of practice that is of interest to them locally or travel to experience practice in challenging and new surroundings. This course is graded on a pass/fail basis. Every Year, Summer

NUR 651 Clinical Fellowship (2 cr.) This intensive clinical experience allows for deepened clinical practice in a flexible timeframe. The 240 -hour requirement can be completed in six weeks as a full-time practice, or in twoor three-day practice allotments throughout the summer. This course comes at the end of the student's sequence of clinical courses. This course is graded on a pass/fail basis. Prerequisite: NUR 612; Every Year, Summer

## NUR 653 Population Health Fellowship (3 cr.) This

 intensive clinical experience allows for a wide variety of individual student preferences in working with issues of population health. The 360 -hour requirement can be completed in condensed or extended timeframes. Prerequisites: NUR 516, NUR 614; Every Year, Summer
## Occupational Therapy (OT)

OT 500 Fieldwork Level II ( 6 cr.) This supervised, 12week clinical experience is designed to provide the student with in-depth opportunities to apply theory to practice in a wide variety of delivery settings, populations and emerging practice arenas. The focus is on the application of purposeful and meaningful occupation and the management of occupational therapy services. The fieldwork experience is designed to promote clinical reasoning and reflective practice, develop professionalism, and demonstrate competence. Specifically, areas of practice may include the following: community-based occupation and life skill training, developmental centers, and mental health settings. Students must abide by all policies in the department student manual. Every Year, Summer

OT 510 Laws and Regulations in OT ( 2 cr .) This course provides a comprehensive overview of the legislative and regulatory bodies, as well as regulations that impact the practice of occupational therapy. Students review the current systems of regulation and the roles and liabilities of the occupational therapist within these systems. This course emphasizes the process of retrieval of legal materials to allow lifelong learning as legislative changes occur. Every Year, Fall

OT 511 Administration and Management in OT (4 cr.) This course introduces students to the daily management functions of an occupational therapy department including planning, organizing, directing, controlling, and supervision of occupational therapy assistants and other department personnel. The course integrates stu-
dents' knowledge of interventions with information related to the delivery of occupational therapy services. Topics include managed care, quality assurance, leadership, regulatory agencies, models of practice, ethics and consultation. Students gain hands-on experience with budgeting, marketing, program evaluation and ethical problem-solving in administration. Every Year, Fall

OT 535 Integrative Interventions: Sensory Integration and Neurorehabilitation ( 4 cr .) This course provides a comprehensive overview of advanced intervention techniques used in occupational therapy. While opportunities are provided to learn specific interventions, emphasis is placed on the clinical reasoning process used in a variety of occupational therapy practice contexts. Application of frames of reference and appreciation of cultural and environmental factors as they relate to client-centered intervention are highlighted. Every Year, Fall

OT 535F Intervention: Sensory Integration and Neurorehabilitation Fieldwork (1 cr.) This course provides structured fieldwork observation in neurorehabilitative and sensory integration settings and allows the student to observe and explore the evaluation and intervention process utilized in these frames of reference. Students have the opportunity to see, observe and report on the variety of intervention strategies utilized within the various models such as health care, education, community and social systems. The settings utilized are equipped to provide clinical application of principles learned in the OT curriculum and focus on the sensory integration and neurorehabilitation intervention process. Fieldwork is three hours per week. Every Year, Fall

OT 535L Intervention: Sensory Integration and Neurorehabilitation Lab ( $\mathbf{1} \mathbf{~ c r . ) ~ T h i s ~ l a b ~ i n t e g r a t e s ~ t h e ~}$ advanced intervention techniques discussed and described in the lecture portion of this class. Opportunities are provided to learn specific interventions required for a variety of occupational therapy practice contexts and with consideration of cultural and environmental factors. Observation is focused on specific evaluation, intervention and outcome processes for these frames of reference. (2 lab hrs.) Every Year, Fall

OT 536 Intervention: Ergonomics and Assistive Technology ( 4 cr ) This course integrates intervention techniques such as ergonomics, environmental modification, assistive technology, and design and fabrication of orthotics and devices. While opportunities are provided to learn specific interventions, emphasis is placed on the clinical reasoning process used in a variety of occupational therapy practice contexts. Application of frames of reference and appreciation of cultural and environmental factors as they relate to intervention are highlighted according to practice environments: rehabilitative, home, work and technology. Every Year, Spring

OT 536F Intervention: Ergonomics and Assistive Technology Fieldwork (1 cr.) This course provides structured fieldwork observation in various settings and allows the student to observe and explore the intervention process utilized in occupational therapy. Students also have the opportunity to see, observe and report on the variety of intervention strategies utilized within the various models such as health care, education, community and social systems. Students develop an appreciation for the frame of reference used in various models of practice as a guide to intervention selection. The settings utilized are equipped to provide clinical application of principles learned in the OT curriculum and focus on intervention strategies with people in home, work and assistive technology settings. Fieldwork is three hours per week. Every Year, Spring

OT 536L Intervention: Orthotic Lab (1 cr.) This lab course provides students with practical, hands-on learning experience in splinting. Students evaluate and fabricate splints for specific diagnoses and client populations. Students apply biomechanical principles to splint construction, analyze the cost of splints (prefabricated versus custom-made), and discuss the role of splinting as part of an overall intervention plan for clients. In addition, students are introduced to various prosthetic devices and the role of occupational therapy during pre-prosthetic and prosthetic training for clients with amputations. An integrated case study links the clinical reasoning process involved in all three components of this course: fieldwork, ergonomics, assistive technology and orthotics. Every Year, Spring

OT 550 OT Research ( 4 cr .) This course addresses the importance of research in the practice of occupational therapy. The course examines the research theories and methods in occupational therapy practice. Students participate in designing and implementing entry-level research studies as well as analyzing and interpreting the professional literature. Students formulate the proposal for their spring capstone project. Every Year, Fall

## OT 555 Pharmacology and Environmental Toxins

 Affecting Human Performance (3 cr.) This course addresses the effects of drug therapy and environmental toxins on the therapeutic process and daily occupational performance of clients. Pharmacokinetics, side effects, drug interactions and current environmental risks are addressed for each body system. Students identify implications for practice based on performance effects observed. This course integrates information from previous courses on bodily systems, human performance, and environmental risk factors with advanced practice issues related to medication and environmental risks. Every Year, SpringOT 556 Professional Development ( 3 cr.) This distance learning course focuses on the current issues related to
the roles of the student transitioning to professional. The course emphasizes linking theory to practice, self-analysis and reflection upon academic experience, and relating those to different facets of clinical and professional reasoning as a funding mechanism in practice. Continued professional growth through the development of understanding of personal and professional responsibilities as a practicing therapist and a commitment to lifelong learning and professional advocacy also are addressed. Grant writing is included. Every Year, Spring

OT 560 Contemporary Modalities ( 2 cr .) This integrated lecture-lab provides hands-on experience with the advanced contemporary modalities used in occupational therapy. Topic areas include traditional physical agent modalities and complementary and alternative modalities used to enhance healing and manage pain in preparation for clients' occupational performance. Students gain experience with each modality and apply use of modalities to comprehensive intervention planning assignments. Students use clinical reasoning to identify the most appropriate physical agent modalities and complementary technique for a given client based on previous knowledge of client evaluation, body systems, and socio-cultural influences. Every Year, Fall

OT 565 Integrative Case Studies (2 cr.) This course explores individual, group and population case studies of clients in occupational therapy. Students analyze each case using clinical reasoning, qualitative research strategies, frames of reference and best practices to develop integrative evaluation and intervention skills. Every Year, Spring

OT 570 Capstone Graduate Projects (3 cr.) This capstone course is a culminating experience in the occupational therapy curriculum, which integrates all coursebased material and fieldwork experiences with practical application. Students design and execute a research or creative project that is relevant to current and emerging practice areas in occupational therapy. Students gain experience in project management, critical analysis and professional presentations. Every Year, Spring

OT 580 Fieldwork Level II ( 6 cr.) These supervised experiences provide the student with the opportunity to apply theory and clinical reasoning skills to the occupational therapy evaluation and intervention process for clients across the life span and in a variety of life environments. Students must abide by all fieldwork policies as listed in the program manual. Fieldwork is 12 weeks long. Every Year, Fall and Summer

OT 581 Fieldwork Level II ( 6 cr.) These supervised experiences provide the student with the opportunity to apply theory and clinical reasoning skills to the occupational therapy evaluation and intervention process for clients across the life span and in a variety of life envi-
ronments. Students must abide by all fieldwork policies as listed in the program manual. Fieldwork is 12 weeks long. Every Year, Fall

OT 600 Evidence-Based Practice in OT ( 3 cr.) This course provides an opportunity to learn and use evidence to make informed decisions for practice. Students review the definitions, uses and purposes of evidence-based practice. Students also have several opportunities to search, analyze and apply evidence to their area of practice. Fall

OT 601 Research Methods I ( 4 cr .) This course is the first part of the research sequence. It introduces learners to the importance of research in a practice profession and the types of research used in occupational therapy practice. The course prepares students to conceptualize the research process within their area of clinical practice. Participants come to understand the components of a research proposal, explore the background to a problem, write research questions, complete a literature review and are introduced to quantitative and qualitative research designs. Learners understand various research designs and methodologies for investigating clinical research topics. Fall

OT 602 Practice Trends in Occupational Therapy (3 cr.) Practice trends in occupational therapy are studied from the perspective of changing terminology in the profession; the profession's vision and focus areas for the future; an analysis of practice from the viewpoints of practitioners, clients, administration and health care policy. Current literature is the focus of the readings with critical reflection the focus of online discussions, and analytical planning for future practice the goal of assignments and student journals. Spring

OT 603 Research Methods II ( 4 cr .) This is the second course in the research sequence. It focuses on research designs, methods, data collection and data analysis. Students review the methodologies used in occupational therapy research studies and design a research methodologies relative to a specific clinical problem identified in OT 601. Students participate in both quantitative and qualitative data collection methods within their practice setting. They analyze descriptive statistics and basic inferential statistics using computerized programs, and begin the preparation of a research proposal relative to their clinical area of practice. Spring

## OT 604 Directed Study in Evidence-Based Practice

 ( 3 cr .) This course is a follow-up to OT 600, which presented the foundations of evidence-based practice. OT 604 faculty members present the students with the steps of the evidence-based practice continuum using journal entry format. Students follow the steps using actual practice case studies from their individual practice sites and present the responses to each step in the process todiscover evidence to guide the practice case questions. Peer interaction and feedback are critical to the realistic development of evidence to guide practice decisions. Each student also participates in the writing of a systematic review, clinical practice guidelines or an evi-dence-based practice brief for the profession. Summer

OT 605 Directed Study in Clinical Practice (3 cr.) This course is highly focused on each individual student's goals and objectives for improving clinical reasoning within their area of practice specialty. The semester prior to taking OT 605 , each student works with the program director to develop learning objectives for practice. The program director places students into small six-person groups based on their practice specialty. An expert faculty member is assigned to facilitate learning experiences that apply current evaluation, intervention, frames of reference in practice, analysis of the intervention and data collection on intervention for research. Multimedia such as DVD, podcasts, Apreso of continuing education, and literature reviews are used. Summer

OT 606 Professional Paper or Project (3 cr.) This integrative course builds on all previous courses and culminates in two of the following for either presentation or submission for publication: evidence-based summary, client-based case study, organizational-based case study, practice paper, literature summary, consumer education, administrative protocol or segments of a research protocol. Group process and peer mentoring are used online to set mutually supportive deadlines, critique and collaborative work. Fall

OT 607 Educational Leadership ( $\mathbf{3 c r}$.) This course is intended to prepare occupational therapy practitioners to assume or enhance their educational leadership roles in a variety of health care and community-based programs. It provides advanced education in the areas of leadership and administration/management, ethics, decision-making and motivation. Fall

OT 608 Entrepreneurial Concepts for OT (3 cr.) This course provides the student with a critical analysis of entrepreneurial concepts in the practice of occupational therapy (business and private practice) including: designing opportunities, completing a needs assessment, defining the market or clientele, developing a business plan, developing a practice plan, billing, measuring effectiveness and growth, marketing and employee management. When possible the student's current practice experience is used for projects. Spring

OT 609 Scholarly Seminar ( 3 cr .) This culminating experience is facilitated by the research faculty (OT 601 and OT 603) to finalize a research project including data analysis from the research methodologies, interpretation of the results and conclusions and relationship to
the practice of occupational therapy. All students are required to present their scholarly projects at a formal conference held on a weekend in May or June. The occupational therapy faculty, undergraduate students and clinicians from practice attend the seminar. Faculty members assist students in determining the course of publication for their research. Spring

## Organizational Leadership (OL)

## OL 601 Foundations of Organizational Leadership

( 3 cr .) This course explores foundational concepts of modern leadership and reviews traditional leadership theory. Contemporary issues in leadership provide opportunity for practical application and personal reflection. Every Year, All

## OL 610 The Power and Politics of Communication

( $\mathbf{3} \mathbf{c r}$ ) This course reviews effective communication techniques at the corporate and individual levels. The study of power and politics of communication includes ethical, cultural and contemporary concepts. Prerequisite: OL 601; Every Year, Fall and Spring

OL 615 Leadership Across Boundaries (3 cr.) This course covers the challenges of interacting, managing and leading across cultural differences and national boundaries. The focus is on coordinating and sustaining cooperative activities across various types of boundaries, including cultural, generational, gender, ethnic and regional. Students explore domestic and international differences as well as evaluate the implications of emerging global actors on business practices. Prerequisite: OL 601; Every Year, Fall and Spring

OL 630 Performance Management ( 3 cr .) This course focuses on the theoretical and practical application of performance management systems. The importance of an effective performance management system is examined. An effective performance management system includes a continuous process of identifying factors and integrated approaches that align individual and team competencies with organizational goals. Students gain a conceptual understanding of key factors involved in assessing performance management systems in small and large organizations. Prerequisite: OL 601; Every Year, Fall and Spring
OL 640 Project Management ( 3 cr.) This course goes beyond basic project management. Students learn advanced PM technology tools and techniques for managing complex projects and programs. Cases and simulations allow students to learn how these advanced skills are applied to produce business/organizational results that require collaborative relationships. Every Year

OL 650 Leading Organizational Change ( 3 cr.) This course examines theoretical concepts and practical tech-
niques of organizational design and change. Students gain a conceptual understanding of leadership skills required for organizational change. The study of leading organizational change includes factors relating to the need for organizational change and the strategy-structure relationship to organizational design with a focus on organizational effectiveness. Prerequisite: OL 601; Every Year, Fall and Spring

OL 662 Ethics and Governance ( $\mathbf{3} \mathrm{cr}$.) This course uses contemporary examples and theoretical perspectives to assess the critical dimensions of ethics in leadership, and explores responsible corporate governance linked to organizational leadership. Prerequisite: OL 601; Every Year, Fall and Spring

OL 681 Leadership in Human Resources (3 cr.) In this course students are introduced to the principles of human resource management (HRM). The course balances theoretical and practical approaches with emphasis on the four primary HRM functions of recruiting, selection, performance management and governance. Other areas covered include compensation and benefits as well as challenges of international HRM. Every Year

OL 682 Employment Law for the Non-Lawyer ( 3 cr.) This course introduces the non-legal professional to laws that govern workplace personnel. Students are provided with an overview of legal issues affecting human resource management. The primary concentration is on the practical application of employment law on individuals in organizations and its impact on HR decisions. Every Year

OL 683 Employee Development Strategies for Organizational Leaders ( $\mathbf{3} \mathbf{~ c r}$.) This course provides students with strategic approaches to developing human talent. Students gain knowledge in the area of training, performance development and talent management principles. Focus is placed on how to analyze performance problems as well as how to apply the principles of learning to the individual, the team and organization development. Every Year

## OL 686 Leading Public Service Organizations (3 cr.)

This course examines the challenges and opportunities of public sector leadership. Course participants examine the chief executive's role as a policy maker; dealing with other community leaders and the media; discipline and ethical conduct, and leading in unionized environments. Critical leadership competencies including authenticity, trust building, exercise of power, organizational behavior and learning to influence the work environment are also examined. Every Year

## OL 687 Strategic Planning for Public Service Organi-

 zations ( 3 cr.) This course develops skills in systematicplanning within a variety of public sector organizational settings. Strategic goal setting, mission driven plans, managing constrained resources, and monitoring and modifying strategic plans in a dynamic environment are emphasized. Participants will explore the processes of advanced planning through the analysis of an organization's strategic plan. Every Year

OL 690 Leadership Consulting Capstone ( 3 cr.) This course integrates the knowledge and skills gained throughout the program. The course focuses on the design and implementation of a consulting case/project, including a comprehensive analysis of organizational issues and proposal of appropriate recommendations and implementation plans. The result is a professionally written consulting paper and presentation. The course is ideally taken last in the program. Prerequisites: OL 601, OL 610, OL 615, OL 630, OL 640, OL 650, OL 662; Every Year, Spring and Summer

## Pathology (PA)

PA 502 Medical Terminology: Advanced (2 cr.) Students study the etymology of medical and surgical terms with emphasis on the principles of word analysis, construction and evolution. The course includes a review of anatomy and abstraction of current published case studies. Every Year, Summer

PA 511 Human Microscopic Anatomy (4 cr.) Human anatomy at the light microscopic level is explored through a general and systemic approach using a lecture-lab combination. Students are introduced to primary tissues and their cellular components followed by system (organ) investigation morphologically that uses the light microscope emphasizing pattern recognition as the mechanism employed for tissue identification. Every Year, Summer

PA 512 Human Anatomy (4 cr.) This course covers dissection of the human body with particular attention to the morphological relationships of individual organ systems. Emphasis is placed on internal anatomy as a major facet of this instruction that is designed for eventual autopsy evisceration and subsequent dissection. Every Year, Summer

PA 512L Human Anatomy Lab (0 cr.) Lab to accompany PA 512. Every Year, Summer

PA 513 Basic Human Pathology I (3 cr.) This series of lectures utilizes Kodachrome slides of gross and microscopic pathology starting with a general introduction to pathology covering inflammation and neoplasia, and then progressing to pathology by the systems such as cardiovascular, endocrine and gastrointestinal systems. Every Year, Fall

PA 514 Basic Human Pathology II (3 cr.) This series of lectures utilizes Kodachrome slides of gross and microscopic pathology of specific areas of disease in a systemic approach including such specialty areas as dermatologic, perinatal, pediatric and forensic pathology as well as the genitourinary, musculoskeletal, respiratory and neuropathology systems. Every Year, Spring

PA 515 Human Physiology (4 cr.) Various aspects of human physiology are examined, with emphasis on the physiologic and biochemical function. The fundamental functional principles for general and systematic organ systems are covered. Every Year, Summer

PA 516 Clinical Pathology ( 4 cr.) Clinical relationships to disease are examined, highlighting such topics as hematology, chemistry, toxicology, serology, urinalysis, blood banking and cytology. Basic techniques and theoretical applications from a case history medical approach are emphasized. Every Year, Spring

PA 517 Applied Anatomic Pathology (4 cr.) Basic principles of clinical history taking, physical examinations and general medical terms and symbols are studied. Emphasis is on autopsy and surgical techniques of evisceration and organ system dissection through lectures, films, slides and practical exposure. Every Year, Spring

PA 518 Laboratory Management ( $\mathbf{3}$ cr.) The organization and function of an anatomic pathology laboratory is investigated to include ordering supplies, money management, computerization, laboratory safety, organization compliance (JACHO, CAP, OSHA) and quality assurance. Every Year, Fall

PA 520 Autopsy Pathology I ( 6 cr.) This three-semester rotational, practical course on the techniques of autopsy dissection includes summarization of clinical histories and gross autopsy findings. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Summer

PA 521 Autopsy Pathology II (6 cr.) This three-semester rotational, practical course on the techniques of autopsy dissection includes summarization of clinical histories and gross autopsy findings. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Fall

PA 522 Autopsy Pathology III ( 6 cr.) This three-semester rotational, practical course on the techniques of autopsy dissection includes summarization of clinical histories and gross autopsy findings. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Spring

PA 523 Surgical Pathology I (6 cr.) This is a threesemester inclusive practical course in methods of gross tissue description, dissection and preparation, fixation and storage of surgical specimens for light, immuno-fluorescent, immunochemical, frozen and electron microscopy. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Summer

PA 524 Surgical Pathology II ( 6 cr ) This is a threesemester inclusive practical course in methods of gross tissue description, dissection and preparation, fixation and storage of surgical specimens for light, immuno-fluorescent, immunochemical, frozen and electron microscopy. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Fall

PA 525 Surgical Pathology III (6 cr.) This three-semester inclusive practical course covers methods of gross tissue description, dissection and preparation, fixation and storage of surgical specimens for light, immuno-fluorescent, immunochemical, frozen and electron microscopy. The 12 -month rotation involves several different hospitals in both community and university settings. Every Year, Spring

PA 526 Biomedical Photography ( 4 cr .) This is a teamtaught course designed to give the pathologists' assistant student a basic background leading to practical application of photographic techniques used in the anatomic pathology laboratory. It also includes an introduction to the principles of imaging radiography. The course is divided into three parts over two summer-school semesters: basic photographic principles and technique; the theoretical and practical aspects of photomacrography and photomicrography as they are applied to anatomic specimens and imaging radiology. Every Year, Summer

PA 535 Disease Mechanisms ( 4 cr .) This course investigates how the normal physiology of the human body is altered in disease states. The mechanisms by which diseases become established, cause damage and alter organ system function are established. Natural body responses and therapeutic measures are examined for their mode of action, side effects and after affects. Every Year, Fall

## Perfusion (PR)

PR 500 Theoretical Foundations of Cardiovascular Perfusion (2 cr.) This course exposes students to role expectations, practice, ethics and professionalism. Students gain an appreciation of the history of key individuals and progress through discoveries that influenced the development of current practice in cardiothoracic surgery and extracorporeal circulation. Students become familiar
with the role of organizations that impact their field, including those responsible for overseeing national certification exams and continuing education programs. A minimum grade of B- is required to progress. Every Year, Fall

## PR 502 Systems Anatomy and Physiology I (3 cr.) This

 course examines selected organ systems pertinent to cardiopulmonary bypass and related procedures performed by the perfusionist. Students study the structure and function of the cardiovascular, lymphatic, immune and pulmonary systems. Emphasis is placed on group discussion and the application of knowledge to solving problems that arise in clinical situations. A minimum grade of B- is required to progress. Every Year, FallPR 503 Systems Anatomy and Physiology II (3 cr.) This course examines selected organ systems pertinent to cardiopulmonary bypass and related procedures performed by the perfusionist. Students study the structure and function of the nervous, hepatic, renal and endocrine systems. Emphasis is placed on group discussion and application of knowledge to solving problems that arise in clinical situations. A minimum grade of B - is required to progress. Prerequisites: PR 500, PR 502, PA 535, PR 508, PR 516; Every Year, Spring

## PR 506 Pharmacologic Intervention in Cardiovascular

 Perfusion (4 cr.) This course is an intensive study of pharmacokinetics, pharmacodynamics, mechanism of action, indications and contraindication of drugs administered to the patient undergoing cardiopulmonary bypass. Cardiovascular drugs, anticoagulants and anesthetic agents administered by the perfusionist are emphasized. Students also become familiar with many drugs used to treat other disease states that may be taken by patients with significant comorbidities. A minimum grade of B- is required to progress. Prerequisites: PR 500, PR 502, PA 535, PR 508, PR 516; Every Year, Spring
## PR 508 Extracorporeal Circuitry and Laboratory I

(1 cr.) Students receive orientation in both the laboratory and the cardiac operating room to equipment operation and techniques applicable to providing extracorporeal circulation during cardiac surgical procedures. Emphasis is placed on developing student skills in researching best practice methods as found in the medical literature. Competent operation of equipment, including the heart lung machine, ventricular assist devices, intra-aortic balloon counterpulsation pump, and autologous blood recovery devices must be demonstrated. A minimum grade of B- is required to progress. Every Year, Fall

PR 509 Extracorporeal Circuitry and Lab II (1 cr.) This intensive study of the appropriate procedures for providing extracorporeal circulation for a variety of purposes includes operation of specialized medical devices, quality
control and troubleshooting techniques. Intra-aortic balloon counterpulsation, autologous blood recovery and ventricular assist devices are covered. Students are expected to search recent medical publications and generate discussion in an attempt to resolve controversial issues pertaining to best practice. A minimum grade of B - is required to progress. Prerequisites: PR 500, PR 502, PA 535, PR 508, PR 516; Every Year, Spring

PR 510 Surgical Techniques (2 cr.) This course examines the cardiothoracic surgical procedures that require extracorporeal circulatory support. Students develop an understanding of the techniques used in numerous open-heart procedures performed on adults and children. Special application of extracorporeal circulation in rare surgical procedures is included. Students are required to view a number of these procedures in the operating rooms of affiliated institutions to increase their understanding of the skills required to perform these operations. A minimum grade of B - is required to progress. Prerequisites: PR 500, PR 502, PA 535, PR 508, PR 516; Every Year, Spring

PR 512 Pediatric Perfusion ( $\mathbf{4} \mathrm{cr}$.) This course presents a study of the embryological formation of the cardiopulmonary system, a description of congenital cardiopulmonary anomalies and the application of perfusion techniques during corrective surgical procedures. Students work both independently and in groups to evaluate the results of clinical studies that contribute to current thinking and practice in the specialized area of pediatric perfusion. A minimum grade of B - is required to progress. Prerequisites: PR 500, PR 502, PA 535, PR 508, PR 516; Every Year, Spring

## PR 514 Special Topics in Cardiovascular Perfusion

2 cr.) This course explores less common and newly introduced procedures for perfusionists, including the use of investigational drugs that modify the biochemical impact of adult and infant extracorporeal membrane oxygenation, extracorporeal carbon dioxide removal, total artificial hearts and newly introduced ventricular assist devices. Old standards of practice are reexamined in the light of new evidence. A minimum grade of B- is required to progress. Prerequisites: PR 503, PR 506, PR 509, PR 510, PR 512; Every Year, Summer

PR 516 Physiologic Monitoring (4 cr.) This course covers monitoring of the physiological impact of extracorporeal circulation, administration of drugs, blood products and anesthetic agents on the patient undergoing surgery requiring cardiopulmonary bypass. Monitoring of intravascular arterial and venous pressures in the systemic and pulmonary circulations, cardiac output measurement are covered. An emphasis is placed on 12-lead electrocardiogram, blood anticoagulation measurement, analysis and interpretation of arterial and venous blood gases, fluid and electrolyte balance and cerebral oxygen
saturation. After mastering the basic concepts of each section, students work through case-study scenarios to apply theory to practice. Electronic simulators are used. A minimum grade of B- is required to progress. Every Year, Fall

## PR 520 Research Methods in Cardiovascular Perfusion

 ( 2 cr.) This course explores ethical issues in medical research, provides an overview of grant proposal writing and includes development of a research project, data collection and analysis using statistical programs for computers. Students develop a presentation and employ various computer presentation techniques to present student project data. Students work individually on the project and require the approval of the instructor to pursue a particular topic. A minimum grade of B- is required to progress. Prerequisite: PR 600; Every Year, FallPR 600 Clinical Practicum I (5 cr.) This course provides experience in the areas of heart-lung bypass for adult, pediatric and infants, including long-term supportive extracorporeal circulation, adjunctive techniques and patient monitoring. Students focus on hypothermia, pulsatile devices, and monitor hemodynamics, blood gases, bubble detection, level sensing, temperature, electrophysiology, coagulation potential and fluid electrolytes. Special applications also are covered. Students must successfully complete a sufficient variety and number of perfusions to satisfy recommendations of the American Board of Cardiovascular Perfusion. Students meet as a group every six weeks, and individually present a patient case study at grand rounds. A minimum grade of B - is required to pass. Prerequisites: PR 503, PR 506, PR 509, PR 510, PR 512; Every Year, Summer

PR 602 Clinical Practicum II ( 5 cr .) This course provides experience in the areas of heart-lung bypass for adult, pediatric and infants, including long-term supportive extracorporeal circulation, adjunctive techniques and patient monitoring. Students focus on hypothermia, pulsatile devices and monitor hemodynamics, blood gases, bubble detection, level sensing, temperature, electrophysiology, coagulation potential and fluid electrolytes. Special applications also are covered. Students must successfully complete a sufficient variety and number of perfusions to satisfy recommendations of the American Board of Cardiovascular Perfusion. Students meet as a group every six weeks, and individually present a patient case study at grand rounds. A minimum grade of B- is required to progress. Prerequisite: PR 600; Every Year, Fall

PR 604 Clinical Practicum III (5 cr.) This course provides experience in the areas of heart-lung bypass for adult, pediatric and infants, including long-term supportive extracorporeal circulation, adjunctive techniques and patient monitoring. Students focus on hypothermia,
pulsatile perfusion devices and monitor hemodynamics, blood gases, bubble detection, level sensing, temperature, electrophysiology, coagulation potential and fluid electrolytes. Special applications also are covered. Students must successfully complete a sufficient variety and number of perfusions to satisfy recommendations of the American Board of Cardiovascular Perfusion. A final comprehensive exam covering all aspects of the program and clinical practice is taken at the end of this course. A successful performance on the examination is required to complete the program. A minimum grade of B - is required to progress. Prerequisite: PR 602; Every Year, Spring

PR 610 Seminar I (3 cr.) Seminar I is a collaborative effort between student and adviser to formulate original evidence-based review of a practice in clinical perfusion practice. Seminar I takes the student through the process of formulating a research question, including hypothesis development, literature review, bibliography, abstract development, formatting for publication and seminar presentation.

PR 612 U.S. Health Care System (3 cr.) This course offers an in-depth look at health care delivery in the United States. The complex and changing issues surrounding the delivery of health care in the U.S. are examined to gain an understanding of this system and how it affects practitioners both professionally and personally. Topics include, but are not limited to history, economics, health care delivery systems, government involvement in health care, health care reform, health insurance, problems of the uninsured and health care disparities. Offered as required, Fall

Courses offered as needed
PR 611 Seminar II (3 cr.)
PR 613 Management in Health Care ( 3 cr.)
PR 614 Medical Ethics ( 2 cr .)
PR 615 Comprehensive Exam (1 cr.)

## Physical Therapy (PT)

## PT 502 Introduction to Clinical Decision Making

 ( 3 cr .) This course integrates basic information obtained through case study information, students' experience in PT 300-301 (Introduction to PT Process I and II) and their previous four-week clinical experience. Students generate in small groups problem-based learning experiences, a basic problem list and therapy goals utilizing the Guide to Physical Therapy Practice. Students discuss sets of prewritten clinical cases in the presence of a faculty adviser who utilizes the Guide to Physical Therapy Practice as a framework for discussion, evaluation and treatment intervention appropriate to the problems and goals identified. This case-based learning experienceallows students to gain a basic understanding of clinical protocol and its application to effectively prepare them for their clinical course work in the fall of the second graduate year. (2 lecture hrs. 2 lab hrs.) Every Year, Fall

PT 503 Physical Therapy Process ( 2 cr .) This course introduces students to the physical therapy profession, the history and evolution of physical therapy, and the role of the physical therapist within the health care system. Basic issues of ethics, professional behaviors and generic skills are discussed. Medical terminology, documentation and medical record review are covered, as are emergency incidents and the measurement of vital signs. The course introduces students to the theory and practice of basic physical therapy skills such as body mechanics, bed mobility training, transfer training and gait training. Every Year, Fall

PT 503L Physical Therapy Process Lab (0 cr.) Lab to accompany PT 503. (4 lab hrs.) Every Year, Fall

PT 504 Physical Therapy Process II (2 cr.) This course continues to develop basic physical therapy skills, with a focus on the test and measures applied by physical therapists in the evaluation and assessment of patients. Goniometry and manual muscle testing for the spine and extremities are covered in depth, as are stretching and therapeutic exercise. Students learn about The Guide to Physical Therapy Practice. The course also includes units covering the tests and measures used to analyze specific patient problems including gait, pain, posture, skin and chest. Prerequisite: PT 502; Every Year, Spring

PT 504L Physical Therapy Process II Lab (0 cr.) Lab to accompany PT 504. (4 lab hrs.) Every Year, Spring

PT 505 Kinesiology I (3 cr.) Kinesiology I introduces the basic principles of kinesiology. Numerous problem-solving processes and skills are developed throughout the semester. Forces and torques in static clinical free body diagrams are studied. The student learns to identify different muscle(s) interactions/combinations. Students then study movement and movement patterns of the upper extremity, comparing one area of the body to another. Course includes a lab component. Prerequisite: MA 141; Every Year, Fall

PT 505L Kinesiology I Lab (0 cr.) Lab to accompany PT 505. (2 lab hrs.) Every Year, Fall

PT 506 Kinesiology II (2 cr.) Students study movement and movement patterns of the lower extremity and trunk, including normal gait. Both the kinematics and the kinetics at the hip, knee and ankle are emphasized, especially in relationship to the closed kinetic chain. Normal gait is introduced and becomes the central focus for this semester. Course includes a lab component. Prerequisite: PT 505; Every Year, Spring

PT 506L Kinesiology II Lab (0 cr.) Lab to accompany PT 506. (2 lab hrs.) Every Year, Spring

PT 512 Human Anatomy I ( 4 cr .) This is the first course in a two-course study of human anatomy. Dissection and presentation of the human body using a regional approach provides the foundation for introducing clinical anatomy with a strong emphasis on structure/function relationships. This course teaches the anatomy of the upper extremity, back, head and neck. Each unit begins with the study of joint structure followed by muscular, nervous and circulatory systems. Clinical correlations of musculoskeletal or neuromuscular pathologies are presented to develop problem-solving skills. Prerequisites: BIO 211, BIO 212; Every Year, Fall

PT 512L Human Anatomy Lab (0 cr.) Lab to accompany PT 512. Every Year, Fall

PT 513 Human Anatomy II (4 cr.) The same regional approach to the study of the human body is practiced as in HSC 338. The regions of study include the pelvis, lower extremity and the trunk. The study of the body cavities begins with an overview of surface anatomy and surface projections of internal viscera. The contents of the thoracic, abdominal and pelvic cavities are identified with an emphasis on interrelationship of visceral structures. Clinical correlations are presented from a systems approach to the study of the body cavities. Course includes a lab component. Prerequisite: PT 512; Every Year, Spring

PT 513L Human Anatomy II Lab (0 cr.) Lab to accompany PT 513. (2 lab hrs.) Every Year, Spring

PT 514 Neuroanatomy I ( 2 cr .) This course presents the gross anatomy and development of the central nervous system. Major structures and landmarks within each major brain vesicle and spinal cord are covered. Prerequisites: BIO 211, BIO 212; Every Year, Fall

PT 515 Neuroanatomy II (2 cr.) This course deals with the function of the systems and structures covered in HSC 342 including major efferent and afferent pathways. Emphasis is placed on the motor control mechanisms for posture and movement and their involvement in common neuropathologies treated by a physical therapist. Prerequisite: PT 514; Every Year, Spring

## PT 519 Issues/Topics in Physical Therapy ( 2 cr.) This

 course introduces prospective physical therapy students to the many topics and issues relevant to the physical therapy profession. Students explore the many roles of the American Physical Therapy Association, practice issues, professional skills and behaviors, including the profession's code of ethics and standards of practice. The role of the physical therapist in both the health care system and the community is discussed. Students also areintroduced to the medical record, documentation and medical terminology. Every Year, Fall

PT 520 Pathophysiology I ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ i s ~ t h e ~ f i r s t ~ o f ~ t h r e e ~}$ courses in pathophysiology. The focus of this course is to present a comprehensive investigation of common neurological disorders in the pediatric and adult population. A brief review of neural development and maturation is provided as a foundation for understanding specific cellular and system responses to neuronal injury or cell death. For selected neurological disorders the disease process is presented in terms of known pathology, known or potential etiology and risk factors, clinical manifestations, and medical management. This course is offered concomitantly with Applied Pharmacology I in which specific chemical agents used to treat the symptoms or cause of the neurological disorders are discussed. Every Year, Spring

PT 521 Pathophysiology II (3 cr.) This course prepares students to recognize the different characteristics of each system and how they interact within the body. Students become well acquainted with the disease process and how it affects the human body. They learn to recognize signs and symptoms of the disease and are introduced to the treatments and complications of that disease. The course provides a continuation of how the effects of a disease state affect the human person. Diseases of the cardiovascular, pulmonary and integumentary homeostasis mechanism are considered. Students also learn how changes in homeostasis, hemopoietic fluids and electrolytes affect the function of the body. Every Year, Fall

PT 522 Pathophysiology III (3 cr.) PT 522 provides students with information concerning the major systems and their role in the function of the body. The students become familiar with the disease state of each system. This includes etiology, signs and symptoms, and treatment and complications. The systems covered are gastrointestinal, urinary, reproductive, endocrine, hemopoietic, environmental diseases, immunology and AIDS. Additional information is provided in regard to oncology. Every Year, Spring

PT 523 Applied Pharmacology I (1 cr.) PT 523 introduces students to the clinical application of the chemical agents within the human being and how these agents will alter the function of the body. Students learn how drugs are administered intelligently and safely and the different mode of action, side effects, mechanism of action, toxicity of such chemicals, and the kinetics. The course helps the student understand how chemical agents affect the inflammatory process, as well as the immune system. The course is meant to provide a comprehensive, accurate, and relevant understanding of how drug therapy can affect neurological pediatric and adult patients receiving physical therapy. Every Year, Spring

PT 524 Applied Pharmacology II (1 cr.) PT 524 introduces students to the clinical application of the chemical agents within the human being and how these agents alter the function of the body. Students learn how drugs are administered intelligently and safely. The different modes of action, side effects, mechanism of action, toxicity of such chemicals and the kinetics are considered. The course is meant to provide a comprehensive, accurate and relevant understanding of how drug therapy can affect cardiovascular and pulmonary patients. Additional information is provided in regard to anesthesia. Every Year, Fall

PT 525 Applied Pharmacology III (1 cr.) This course is the third seminar in pharmacology. It continues to introduce physical therapy students to the chemical agents that provide structural basis and energy supply to living organisms. The course gives an understanding of how drugs are administered intelligently and safely. It teaches the different modes of action, side effects, toxicity, and kinetics of chemical interactions within the human body. The course provides a comprehensive, accurate and relevant understanding of how drug therapy can affect patients receiving physical therapy. Areas of study include the gastrointestinal system, endocrine system and specific treatment of diabetes mellitus. Every Year, Spring

PT 528 Musculoskeletal I ( 4 cr ) This course builds upon information taught in the foundational sciences and is designed to provide PT majors with the necessary knowledge and skills to perform a best-practice clinical examination on individuals with musculoskeletal dysfunctions in the lower back, neck, shoulder, hip and knee regions of the body. Using examination findings, students are able to generate a best-practice diagnosis, prognosis and plan of care. Every Year, Spring

## PT 529 Physical Therapy Process-Musculoskeletal II

 ( 4 cr .) This course builds upon information taught in the foundational sciences and provides PT majors with the necessary knowledge and skills to perform a best-practice clinical examination on individuals with musculoskeletal dysfunctions in the mid-back, ankle, foot, elbow, wrist and hand regions of the body. Using examination findings, students are able to generate an evi-dence-based diagnosis, prognosis and plan of care. Students also are instructed in best-practice therapeutic exercise and basic manual skills. Every Year, SummerPT 529L PTP Musculoskeletal II Lab (0 cr.) Lab to accompany PT 529. (3 lab hrs.) Every Year, Fall and Summer

## PT 531 Physical Therapy Process-Acute Care and

 Cardiopulmonary Physical Therapy I (4 cr.) This course provides the student with a broad background in the physical therapy management of patients with acute medical problems with special emphasis on pulmonary,cardiac and dermatological pathologies. Drawing upon the anatomy, physiology and pathology previously and concurrently taught, the student develops the ability to integrate this information to appropriately evaluate and establish an effective treatment plan for any patient with an acute cardiopulmonary disorder, dermatological condition, or other acute medical problems encountered in the hospital setting. The student learns about appropriate precautions to be taken in the hospital. There are opportunities to learn about different areas within the hospital including the intensive care unit. Every Year, Summer

## PT 531L PTP Acute Care Cardiopulmonary Lab I (0 cr.) Lab to accompany PT 531. (2 lab hrs.) Every Year, Summer

PT 532 Acute Care and Cardiopulmonary II (3 cr.) This course builds on material presented in PT 447 and continues to examine the evaluation, treatment planning and physical therapy intervention of the acute care and cardiopulmonary patient. Physical therapy students examine the cardiopulmonary changes that are present over the lifespan of the individual, and the manner in which the physical therapist intervenes. Physical therapy management of acute care patients in specialized units such as the transplant unit, the neonatal unit and the pediatric unit are explored, as well as the ways in which the physical therapist interacts with other members of the acute care health team. Goal setting and discharge planning in the unique setting of acute care are examined. Physical therapy students explore the challenging cardiopulmonary issues that are present in treating the bariatric patient, and also review the cardiopulmonary ramifications of treating the patient with sleep apnea. Every Year, Fall

## PT 532L Physical Therapy Process: Acute Care and Cardiopulmonary II Lab (0 cr.) Lab to accompany PT

 532. Every Year, FallPT 533 Neurological Rehabilitation I (4 cr.) This course presents physical therapy assessment and treatment procedures for the child with neurological and orthopedic pathology. Assessment procedures covered include the evaluation of normal and abnormal movement, functional mobility and other specific neurological impairments. The use of standardized testing in this population also is covered. The semester concludes with intensive laboratory instruction in neurodevelopmental treatment techniques. Upon completion of this course the student is expected to perform a comprehensive evaluation of a child with neurological impairments, plan appropriate treatment and write a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, Fall

PT 533L Neurological Rehabilitation Lab I (0 cr.) Lab to accompany PT 533. (2 lab hrs.) Every Year, Fall

PT 534 Neurological Rehabilitation II (3 cr.) This course presents physical therapy assessment and treatment procedures for the adult with neurological impairments. Assessment procedures include the evaluation of normal movement, abnormal movement, functional mobility and other specific neurological deficits. The semester concludes with intensive laboratory instruction in the neurodevelopmental treatment techniques. Upon completion of this course the student is expected to perform a comprehensive evaluation of an adult with neurological impairments, plan appropriate treatment and write a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, Spring

PT 534L Neurological Rehabilitation Lab II (0 cr.) Lab to accompany PT 534. (2 lab hrs.) Every Year, Spring

## PT 548 Physical Therapy Process-Physical Agents

 ( $\mathbf{3} \mathbf{~ c r . ) ~ T h i s ~ c o u r s e ~ p r o v i d e s ~ t h e ~ s t u d e n t ~ w i t h ~ t h e ~ n e c e s - ~}$ sary knowledge and skills to properly utilize physical agents in patient treatment. These agents include electricity, sound, thermal and light energy. An emphasis is placed on integration of theory and clinical application. Students are tested with practical problem-solving examinations that require the synthesis and integration of current theoretical and evidence-based rationale for proper application to specific patient situations. Every Year, FallPT 548L PTP Physical Agents Lab (0 cr.) Lab to accompany PT 548.(2 lab hrs.) Every Year, Fall

PT 555 Clinical Education Seminar II (0 cr.) This one-hour-per-week, noncredit seminar takes place during the summer following the first academic year immediately preceding the first clinical experience. It introduces the student to the clinical education process, and includes information regarding how academic and clinical education structures interface, expectations of clinical education sites and the academic institution regarding student clinical performance and use of the clinical evaluation instrument. Questions and discussion are encouraged. This is a nongraded seminar; however, attendance is mandatory at all sessions to allow the student to participate in all clinical experiences, affiliations and internships. Every Year, Spring

## PT 557 Diagnostic Imaging for Physical Therapists

 ( 3 cr.) This course introduces the student to diagnostic imaging principles and techniques as applied to musculoskeletal, neurologic and cardiovascular and pulmonary systems' examination, evaluation and management. The course emphasizes radiographic anatomy, common normal variants and pathological and traumatic conditions.In addition to standard radiographic techniques, other imaging techniques such as CT scan, nuclear medicine, angiography, magnetic resonance imaging, arthrogram and special techniques are discussed. The course is organized by body systems: musculoskeletal, cardiovascular and pulmonary and neurologic as well as a session on technologic advances. Every Year, Spring

PT 562 Applied Concepts in Education (2 cr.) This course introduces students to the educational concepts used in physical therapy. Students learn to apply principles of teaching and learning to: improve their own learning; maximize their patient intervention strategies; and develop an original educational experience for presentation. Ultimately, students are able to educate others (patients, families, students, peers and other health care professionals), using a variety of teaching methods that consider the needs of the learner. Every Year, Spring

PT 564 Psychosocial Aspects of Physical Disability and Management ( 3 cr .) The course addresses the psychosocial dimensions of physical therapy intervention from both the therapist and client perspectives. Students foster clinical reasoning by completing and presenting an integrative case project at the end of semester. Topics include: the humanistic philosophy as part of psychological rehabilitation; physical and psychological variables that influence recovery; the clinical reasoning process of PTs and qualities of experts; the therapeutic relationship and client-centered practice; psychological influences on rehabilitation and adaptation including stress and trauma; typical mental health conditions that are part of PT practice; behavioral management of difficult persons and situations including suicidality, abuse and mental illness; and sexuality and disabilityintervention strategies. Every Year, Spring

## PT 564L Psychosocial Aspects of Physical Disability

 Lab (0 cr.) Lab to accompany PT 564. Every Year, SpringPT 565 Research Theory (3 cr.) The lecture component of this course ( 2 hrs . per week) provides instruction in appraising the evidence for diagnostic tests and clinical measures, prognostic factors, interventions and clinical prediction rules. Commonly used quantitative procedures including t -test and confidence intervals, one-way ANOVA, nonparametric tests of significance, correlation, regression, analysis of frequencies and statistical measures of reliability, are covered. The discussion component of the course ( 1 hr . per week) develops the skills and knowledge needed to read and appraise physical therapy research. Every Year, Spring

PT 565L Research Theory Lab ( 0 cr .) Lab to accompany PT 565. (1 lab hr.) Every Year, Spring

PT 568 Professional Issues in Physical Therapy ( 2 cr .) This course introduces the student to the current issues facing the physical therapy profession. Topics include professional trends and professionalism, risk management, manpower trends to include minority and cultural impacts to care, education trends, legal and ethical issues and reimbursement issues. The course addresses physical therapy concerns related to state and federal legislation as well. Every Year, Spring

## PT 590 Introduction to Physical Therapy Research

 ( 2 cr ) This course provides students with the skills and knowledge needed to read, analyze and critique physical therapy research. Additionally, students are provided with the necessary skills to develop their own research proposals. The following topics are covered: developing research (research problem, literature review, proposal and ethics), roots of research (quantification in research, nonexperimental research, confidence in research and instruments, experimental research and designs), hypothesis testing (parametric and nonparametric tests), and revealing research (reporting). Prerequisite: MA 275; Every Year, SummerPT 626 Pathophysiology II (3 cr.) This course prepares students to recognize the different characteristics of each system and how they interact within the body. Students become well acquainted with the disease process and how it affects the human body. They learn to recognize signs and symptoms of the disease and are introduced to the treatments and complications of that disease. The course provides a continuation of how the effects of a disease state affect the human person. Diseases of the cardiovascular, pulmonary and integumentary homeostasis mechanism are considered. Students also learn how changes in homeostasis, hemopoietic fluids and electrolytes affect the function of the body. Every Year, Spring

PT 627 Applied Pharmacology II (1 cr.) This course introduces students to the clinical application of the chemical agents within the human being and how these agents alter the function of the body. Students learn how drugs are administered intelligently and safely. The different modes of action, side effects, mechanism of action, toxicity of such chemicals and the kinetics are considered. The course provides a comprehensive, accurate and relevant understanding of how drug therapy can affect cardiovascular and pulmonary patients. Additional information is provided in regard to anesthesia. Every Year, Spring

PT 628 Acute Care and Cardiopulmonary II (3 cr.) This course builds on material presented in PT 531 and continues to examine the evaluation, treatment planning and physical therapy intervention of the acute care and cardiopulmonary patient. Physical therapy students examine the cardiopulmonary changes that are present over the lifespan of the individual, and the manner in which the
physical therapist intervenes. Physical therapy management of acute care patients in specialized units such as the transplant unit, the neonatal unit and the pediatric unit are explored, as well as the ways in which the physical therapist interacts with other members of the acute care health team. Goal setting and discharge planning in the unique setting of acute care are examined. Physical therapy students explore the challenging cardiopulmonary issues that are present in treating the bariatric patient, and also review the cardiopulmonary ramifications of treating the patient with sleep apnea. Every Year, Spring

PT 628L Physical Therapy Process: Acute Care and Cardiopulmonary II Lab ( $\mathbf{0} \mathbf{~ c r}$.) Lab to accompany PT 628. (2 lab hrs.) Every Year, Spring

PT 629 Physical Therapy Process-Musculoskeletal III ( 3 cr .) This course builds on information taught in the foundational sciences and provides the physical therapy major with the necessary knowledge and skills to examine physical therapy patients with musculoskeletal dysfunctions of the spine, pelvis and temporomandibular joint. Upon completion of the examination, students are able to generate a diagnosis, prognosis and plan of care for these patients. The relevant theory and practical learning experiences are provided for the student to develop the knowledge and skills necessary for understanding, presenting rationale for, and applying evidence-based physical therapy intervention strategies to those physical therapy patients described previously. Every Year, Fall and Spring

## PT 629L Physical Therapy Process: Musculoskeletal

 III Lab (0 cr.) Lab to accompany PT 629. (2 lab hrs.) Every Year, SpringPT 636 Neurological Rehabilitation III (4 cr.) This course is a continuation of PT 533. The concepts of normal and abnormal movement and motor development continue to be applied to the examination, evaluation and intervention procedures for adult clients with various types of neurological disabilities. Emphasis is placed on the neurophysiological principles that these theories are based on, current facilitation and integration of movement responses in neurological disorders and integration of all theories into an eclectic and functional approach to rehabilitation. Upon completion of this course, students are expected to perform a comprehensive examination and evaluation of an adult with a neurological diagnosis, develop an appropriate plan of care and document the aforementioned through a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, Spring

PT 636L Neurological Rehabilitation III Lab (0 cr.) Lab to accompany PT 636. (2 lab hrs.) Every Year, Spring

## PT 644 Physical Therapy Process Manual Therapy

 ( 3 cr .) This course presents physical therapy assessment and treatment procedures for the adult with neurological impairments. Assessment procedures include the evaluation of normal movement, abnormal movement, functional mobility and other specific neurological impairments. The semester concludes with intensive lab instruction in neuromuscular treatment techniques. Upon completion of this course, students are expected to perform a comprehensive evaluation of an adult with neurological impairments, plan appropriate treatment and write a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, FallPT 644L Manual Therapy Lab ( 0 cr.) Lab to accompany PT 644. (2 lab hrs.) Every Year, Spring

## PT 649 Physical Therapy Process Selected Topics in

 Rehabilitation (4 cr.) This course provides an in-depth background of the assessment and treatment of individuals with spinal cord injury, and individuals requiring a lower extremity orthotic or prosthetic device. Abnormal gait is presented as a foundation to understanding the function of orthotic or prosthetic devices. Students build on knowledge of the biomechanical concepts of normal gait, developed in Kinesiology II (BI 341), to understand ambulation using prosthetic or orthotic devices. Assessment and treatment procedures are emphasized for individuals with peripheral vascular disease resulting in amputation, musculoskeletal deficiencies requiring orthotic management, or sensory-motor losses resulting from spinal cord injury. Every Year, FallPT 649L Selected Topics Rehabilitation Lab (0 cr.) Lab to accompany PT 649. (2 lab hrs.) Every Year, Fall

PT 655 Clinical Education Seminar IV (0 cr.) This ungraded seminar course is a continuation of PT 556. Every Year, Spring

## PT 657 Diagnostic Imaging for Physical Therapists

 ( 3 cr ) This course introduces the student to diagnostic imaging principles and techniques as applied to musculoskeletal, neurologic and cardiovascular and pulmonary systems' examination, evaluation and management. The course emphasizes radiographic anatomy, common normal variants and pathological and traumatic conditions. In addition to standard radiographic techniques, other imaging techniques such as CT scan, nuclear medicine, angiography, magnetic resonance imaging, arthrogram and special techniques are discussed. The course is organized by body systems: musculoskeletal, cardiovascular and pulmonary and neurologic as well as a session on technologic advances. Every Year, SummerPT 658 Differential Diagnosis (3 cr.) This course provides students with methods of identifying signs and symptoms of diseases and differentiating between those that are musculoskeletal and those that are systemic conditions. Throughout the course the student learns to correlate the findings from the patient's personal and family history, the physical therapy interview and the objective evaluation. This course provides the student with reference for determining when patients should be referred to a physician. Every Year, Spring and Summer

PT 659 Advanced Clinical Decision-Making (4 cr.) The course, which is designed as a small group, problembased learning, discussion course integrates patient clinical information from the major areas of PT practice outlined in the Guide to Physical Therapy Practice: musculoskeletal, neuromuscular, cardiovascular, pulmonary and integumentary. Students research and discuss cases and generate the following information: pathology (including significant contributing factors), PT evaluation, PT problem list, PT goals, PT assessment and treatment, both PT and any appropriate medically based interventions. Topics such as pharmacology, X-ray interpretation, differential diagnosis and delegation of treatment are integrated into case discussion as appropriate. (2 lecture hrs.; 2 lab hrs.) Every Year, Spring

PT 661 Administration and Management (3 cr.) Students learn about various components influencing the role of PT as a manager and/or consultant in the current health care delivery system. The organization, administration and management of a department is emphasized through topics such as principles of management; types of supervision and managerial styles; program planning and decision-making; policy development; quality assurance; utilization review; financing, reimbursement, and budget preparation; regulating agencies and managed care; legal issues and risk management; consumer satisfaction; and ethical considerations. Professional topics include career-planning strategies such as resume writing and development. Every Year, Fall and Summer

PT 661L Administrative and Management Lab (1 cr.) Lab to accompany PT 661. (2 lab hrs.) Every Year, Fall

## PT 663 Topics in Community Health and Wellness

( 3 cr ) The course covers theories of wellness, prevention and health promotion including implications for persons and/or health programs within a community setting. A primary reference for this course is Healthy People 2010. Related topics include health maintenance and health promotion in client-centered care; identification of health risks and disparities related to age, gender, culture, ethnicity and lifestyle; general systems theories and the determinants of health; leading health indicators and focus areas; and health promotion models. Students
design a health promotion program by the completion of the course. Every Year, Spring

PT 663L Community Health and Wellness Lab (0 cr.) Lab to accompany PT 663. (1.5 lab hrs.) Every Year, Spring

PT 664 Neurological Rehabilitation I (4 cr.) This course presents physical therapy assessment and treatment procedures for the adult with neurological impairments.
Assessment procedures include the evaluation of normal movement, abnormal movement, functional mobility and other specific neurological impairments. The semester concludes with intensive lab instruction in neuromuscular treatment techniques. Upon completion of this course, the student is expected to perform a comprehensive evaluation of an adult with neurological impairments, plan appropriate treatment and write a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, Fall

PT 664L Neurological Rehabilitation Lab I (0 cr.) Lab to accompany PT 664. (2 lab hrs.) Every Year, Spring

PT 665 Neurological Rehabilitation II (3 cr.) This course presents physical therapy assessment and treatment procedures for the adult with neurological impairments. Assessment procedures include the evaluation of normal movement, abnormal movement, functional mobility and other specific neurological deficits. The semester concludes with intensive laboratory instruction in the neurodevelopmental treatment techniques. Upon completion of this course the student is expected to perform a comprehensive evaluation of an adult with neurological impairments, plan appropriate treatment and write a comprehensive case study. Exams require students to synthesize and integrate knowledge gained from current and previous course work. Every Year, Summer

PT 665L Neurological Rehabilitation Lab II (0 cr.) Lab to accompany PT 665. (2 lab hrs.) Every Year, Summer

PT 666 Research Application (2 cr.) The student is assigned an adviser for this independent study course. Upon completion of the course, students produce a research proposal to include statement of the problem, purpose and background of the study, and methods of the research. Every Year, Spring

PT 667 Capstone Research Project (4 cr.) The research project proposed by students in PT 666 is conducted and results are analyzed and interpreted. The end product is a research manuscript that includes statement of the problem, rationale/theoretical framework, literature review (from PT 666), methods, results, discussion and conclusions. This project is reported to peers and advis-
ers in the form of a poster and oral power point presentation and submitted for presentation at a regional or national meeting or to a peer-reviewed journal. This course is graded on a pass/fail basis. Every Year, Spring

## PT 668 Psychosocial Aspects of Physical Disability

( 2 cr .) The course addresses the psychosocial dimensions of physical therapy intervention from both the therapist and client perspectives. Students foster clinical reasoning by completing and presenting an integrative case project at the end of semester. Topics include: the humanistic philosophy as part of psychological rehabilitation; physical and psychological variables that influence recovery; the clinical reasoning process of PTs and qualities of experts; the therapeutic relationship and client-centered practice; psychological influences on rehabilitation and adaptation including stress and trauma; typical mental health conditions that are part of PT practice; behavioral management of difficult persons and situations including suicidality, abuse and mental illness; and sexuality and disabilityintervention strategies. Every Year, Summer

## PT 668L Psychosocial Aspects of Physical Disability

Lab ( 0 cr.) Lab to accompany PT 668. Every Year, Summer
PT 671 Clinical Education I (4 cr.) A 8-10 week clinical internship increases the student's clinical skills. Students progress from fine tuning of clinical skills and comprehension of their role as part of the health care provider team to demonstration of entry-level skills, professionalism and exploring clinical areas of special interest. Variable individual clinical internships allow students to pursue in-depth practice in areas of interest or gain a wide variety of clinical experiences. The philosophy of the physical therapy program is to expose students to a great variety of clinical experiences while allowing them to gain additional experience in an area of interest. This course is graded on a pass/fail basis. Every Year, Fall

PT 672 Clinical Education II (4 cr.) This second fulltime 8-10 week clinical experience helps students develop skills in evaluating and treating inpatients or outpatients with a variety of musculoskeletal and general medical/surgical diagnoses. This includes the practice of effective communication skills with patients and professionals. Preparation for applying didactic material to patient care during this internship was provided by lab practical exams, clinical problem solving and role playing, which occurred in all previous physical therapy process course work. Course is taken following fifth year. This course is graded on a pass/fail basis. Every Year, Summer

PT 675 Normal/Abnormal Gait (1 cr.) This online course provides an overview of both normal and abnormal gait with an emphasis on kinematic and kinetic analysis of the gait cycle. Gait analysis techniques including motion analysis, dynamic electromyography, force plate record-
ings, measurement of energy cost of ambulation and measurement of stride characteristics are presented. Physical therapy treatment approaches for patients with abnormal gait are emphasized. Prerequisites: PT 538, PT 539, PT 540, PT 541; Every Year, Summer

PT 681 Clinical Internship I ( 6 cr.) This 10-week clinical internship increases students' clinical skills, as they progress from fine tuning their clinical skills and comprehending their role as part of the health care provider team to demonstrating entry-level skills, professionalism and exploring clinical areas of special interest. Variable individual clinical internship time blocks allow students to pursue in-depth practice in areas of interest or gain a wide variety of clinical experiences. Sequenced objectives for the fourth- and fifth-year clinical internships ensure progression to entry-level skill. Course is taken following the sixth year. This course is graded on a pass/fail basis. Every Year, Summer

PT 682 Clinical Internship II (6 cr.) An additional 10 weeks of clinical internship further increases the students' clinical skills. Students progress from fine tuning their clinical skills and understanding their role as part of the health care provider team to demonstrating entrylevel skills, professionalism and exploring clinical areas of special interest. Variable individual clinical internship time blocks allow students to pursue in-depth practice in areas of interest or gain a wide variety of clinical experiences. Sequenced objectives for the fourth- and fifthyear clinical internships ensure progression to entry-level skill. Course is taken following the sixth year. This course is graded on a pass/fail basis. Every Year, Summer

PT 736 Neurological Rehabilitation III (3 cr.) This course presents information needed for the physical therapy student to complete a thorough examination and evaluation of a child with neurological and/or orthopedic diagnoses. Upon completion of the examination, students are able to generate an accurate diagnosis, prognosis and an appropriate plan of care for these patients. Relevant theory and practical learning experiences are provided for the student to develop the knowledge and skills necessary for applying an evidence-based physical therapy intervention strategy. Every Year, Fall

## PT 736L Neurological Rehabilitation III Lab ( 0 cr .)

 Lab to accompany PT 736. (2 lab hrs.) Every Year, Fall
## PT 744 Physical Therapy Process Manual Therapy

 ( 2 cr .) This course introduces the student to the following manual therapy approaches for patients with musculoskeletal and neuromuscular dysfunctions of the body: myofascial release, craniosacral therapy, manual lymph drainage, and acupressure. The theoretical rationale for treatment, and indications/contraindications for each approach are taught. Students learn to integratespecific examination and intervention techniques to optimize patient/client physical therapy management. Every Year, Fall

PT 744L Manual Therapy Lab ( 0 cr .) Lab to accompany PT 744. (2 lab hrs.) Every Year, Fall

PT 749 Physical Therapy Process-Selected Topics in Rehabilitation (3 cr.) This course provides an in-depth background of the assessment and treatment of individuals with spinal cord injury, and individuals requiring a lower extremity orthotic or prosthetic device. Abnormal gait is presented as a foundation to understanding the function of orthotic or prosthetic devices. Students build on knowledge of the biomechanical concepts of normal gait, developed in Kinesiology II (HSC 341) to understand ambulation using prosthetic or orthotic devices. Assessment and treatment procedures are emphasized for individuals with peripheral vascular disease resulting in amputation, musculoskeletal deficiencies requiring orthotic management, or sensory-motor losses resulting from spinal cord injury. Every Year, Fall

PT 749L Physical Therapy Process-Selected Topics in Rehabilitation (0 cr.) Lab to accompany PT 749. (2 lab hrs.) Every Year, Fall

## PT 759 Advanced Clinical Decision-Making (2 cr.)

The course, which is designed as a small group, problem-based learning, discussion course integrates patient clinical information from the major areas of PT practice outlined in the Guide to Physical Therapy Practice: musculoskeletal, neuromuscular, cardiovascular, pulmonary and integumentary. Students research and discuss cases and generate the following information: pathology (including significant contributing factors), PT evaluation, PT problem list, PT goals, PT assessment and treatment, both PT and any appropriate medically based interventions. Topics such as pharmacology, X-ray interpretation, differential diagnosis and delegation of treatment are integrated into case discussion as appropriate. (2 lecture hrs.; 2 lab hrs.) Every Year, Fall

PT 759L Advanced Clinical Decision-Making Lab (0 cr.) Lab to accompany PT 759. (2 lab hrs.) Every Year, Fall

PT 767 Capstone Research Project (2 cr.) The research project proposed by students in PT 666 is conducted and results are analyzed and interpreted. The end product is a research manuscript that includes a statement of the problem, rationale/theoretical framework, literature review, methods, results, discussion and conclusions. This project is reported to peers and advisers in the form of a poster and oral PowerPoint
presentation and submitted for presentation at a regional or national meeting or to a peer-reviewed journal. This course is graded on a pass/fail basis. Every Year, Fall

## PT 768 Professional Issues in Physical Therapy ( 2 cr.)

The purpose of this course is to introduce the student to the current issues facing the physical therapy profession. Topics include professional trends and professionalism, risk management, manpower trends to include minority and cultural impacts to care, education trends, legal and ethical issues and reimbursement issues. The course addresses physical therapy concerns related to state and federal legislation as well. Every Year, Fall

PT 781 Clinical Education I (5 cr.) Students are assigned to a full-time, 10 -week clinical internship, which provides an understanding of the continuum of care. Students may be involved in evaluating, developing and implementing treatment for patients with various musculoskeletal and cardiopulmonary dysfunctions. Students begin to develop their professional and interpersonal skills through interactions with patients, families and other health professionals. Successful completion of this internship is a prerequisite for continuing in the program. This course is graded on a pass/fail basis. Every Year, Spring

PT 782 Clinical Internship II (4 cr.) This 10 week clinical internship increases students' clinical skills, as they progress from fine tuning their clinical skills and comprehending their role as part of the health care provider team to demonstrating entry-level skills, professionalism and exploring clinical areas of special interest. Variable individual clinical internship time blocks allow students to pursue in-depth practice in areas of interest or gain a wide variety of clinical experiences. Sequenced objectives for the fourth- and fifth-year clinical internships ensure progression to entry-level skill. Course is taken following the sixth year. This course is graded on a pass/fail basis. Every Year, Spring

PT 783 Clinical Internship III (5 cr.) An additional 10 weeks of clinical internship further increases the students' clinical skills. Students progress from fine tuning their clinical skills and understanding their role as part of the health care provider team to demonstrating entry-level skills, professionalism and exploring clinical areas of special interest. Variable individual clinical internship time blocks allow students to pursue in-depth practice in areas of interest or gain a wide variety of clinical experiences. Sequenced objectives for the fourth- and fifth-year clinical internships ensure progression to entry-level skill. Course is taken following the sixth year. This course is graded on a pass/fail basis. Every Year, Summer

## Physician Assistant (PY)

PY 501 Physiology ( 4 cr .) This course takes a system approach to physiologic and biochemical function of the human body, including relevant anatomical correlations. Laboratory sessions emphasize clinical application to systemic function. Every Year, Summer

PY 501L Physiology Lab ( 0 cr .) Lab to accompany
PY 501. (3 lab hrs.) Every Year, Summer
PY 502 Physical Diagnosis (4 cr.) Students are introduced to the organization and techniques for performing the physical examination including use of equipment, written and oral presentations. Special techniques and maneuvers are covered as part of the focused physical examination. Using a systems-based approach, lab sessions provide students with practical experience performing the complete physical examination on the adult patient. Specialty workshops in orthopedics, the exam of the infant and child as well as the male and female genitalia provide students with practical experience in these areas prior to their first interaction with patients. Every Year, Fall

PY 502L Physical Diagnosis Lab (0 cr.) Lab to accompany PY 502. (2 lab hrs.) Every Year, Fall

PY 503 Principles of Interviewing ( $\mathbf{3} \mathbf{~ c r}$.) This course explores the various methods of approaching and interviewing patients focusing on the establishment of a relationship, effects of cultural backgrounds, gender and age on giving and receiving of information in order to obtain an accurate medical history. Every Year, Summer

## PY 504 History, Roles and Responsibilities of the PA

(1 cr.) This course explores through lecture and discussion the factors affecting the development of the profession and role socialization with emphasis on standards of quality assurance, credentialing of continued competence, policies and regulations governing clinical responsibilities and dynamics of membership on a health care team. Every Year, Spring

PY 505 Clinical Pharmacology I (2 cr.) This distance education course covers the classification, mechanism of action, toxicity and clinical use of therapeutics agents. Side effects, indications, dose response and management of therapeutics are emphasized. Every Year, Fall

## PY 506 Principles of Internal Medicine ( 6 cr.) This

 course takes an organ system approach to disease emphasizing the pathogenesis, clinical presentation, differential diagnosis, diagnostic and therapeutic approach to disease processes. Laboratory sessions focus on clinical problem solving through the use of real cases. Every Year, FallPY 506L Clinical Correlation Lab ( 0 cr ) Lab to accompany PY 506. (1 lab hr.) Every Year, Fall

PY 507 Principles of Electrocardiography ( 1 cr.) This course offers a directed approach to understanding the principles of electrocardiography and its applications to clinical practice. Throughout this course, general principles of the etiologies of abnormal EKG patterns, the differential diagnosis and clinical management are discussed to correlate the EKG with clinical situations. Every Year, Summer

PY 507L EKG Lab (0 cr.) Lab to accompany PY 507. (1 lab hr.) Every Year, Summer

PY 508 Diagnostic Methods I (2 cr.) Clinical laboratory medicine is examined with emphasis on indications for tests, normal values, interpretation of results and correlation with clinical conditions. Laboratory sessions provide students with practical experience performing basic laboratory tests. Every Year, Summer

PY 508L Diagnostic Methods Lab (0 cr.) Lab to accompany PY 508. (2 lab hrs.) Every Year, Summer

## PY 509 Principles of Obstetrics and Gynecology ( 3 cr .)

Anatomy and physiology of the human reproductive system are examined, including the changes in pregnancy, prenatal care, medical and surgical complications of pregnancy, pre- and postpartum care. Common gynecologic conditions, methods and effectiveness of contraception, cancer detection methods and the diagnosis and treatment of sexually transmitted infections in the female are explored. Every Year, Spring

PY 510 Principles of Pediatrics ( $\mathbf{3} \mathbf{~ c r}$.) This course examines the physical and psychological fundamentals of normal growth and development. Focus is on the major pediatric illnesses and conditions, their signs, symptoms and treatment. Immunization schedules, the various medications used in the pediatric population, their doses and indication are examined; the management of pediatric emergencies such as acute cardiac and respiratory arrest, anaphylaxis, seizures and trauma are also explored. Every Year, Spring

## PY 511 Principles of Surgery and Emergency Medicine

 ( $\mathbf{4} \mathbf{~ c r . ) ~ T h e ~ f u n d a m e n t a l s ~ o f ~ s u r g i c a l ~ d i s e a s e ~ a r e ~ e x p l o r e d ~}$ with discussions on the etiology, pathophysiology, clinical manifestations and appropriate management of major and minor surgical conditions and care of the acutely injured and critically ill patient. Topics are discussed with emphasis on clinical presentation and pre- and post-operative management. The course introduces the principles of life support technique and the initial management of acute medical and traumatic conditions. Laboratory sessions are used to familiarize the student with aseptic technique andbasic surgical procedures such as airway control, various catheter placements, surgical bleeding control and wound management. Every Year, Spring

PY 511L Clinical Skill Lab ( 0 cr.) Lab to accompany PY 511. (1.5 lab hrs.) Every Year, Spring

PY 512 Psychosocial Issues in Health Care (2 cr.) This course explores how cultural belief systems and values in a multicultural society relate to the provision of appropriate health care and counseling. Students are familiarized with the biological and psychological attributes that contribute to sexual expression as well as the societal values that shape both perception and expression. The factors associated with communicating with and caring for individuals from different cultures, opposite genders or differing sexual preference are explored. Lab sessions help students gain experience and develop confidence in approaching patients through preclinical clerkships. Students improve their clinical skills in the areas of eliciting a patient history, performing the appropriate physical exam, presenting an oral report and demonstrating medical documentation via the patient chart note. Every Year, Spring

PY 512L Psychosocial Issues Lab ( 0 cr .) Lab to accompany PY 512. (2 lab hrs.) Every Year, Spring

PY 513 Behavioral Medicine ( 3 cr .) Basic psychiatric manifestations and how to work with both patients and families exhibiting psychological problems are examined. Topics include psychiatric diagnosis, the effect of society on behavior, the basis of drug and alcohol abuse, and basic intervention and treatment modalities. Every Year, Spring

PY 514 Diagnostic Methods II ( 1 cr .) This course covers the basic principles of radiologic and imaging techniques, indication for various tests and recognition of abnormal findings. Every Year, Fall

PY 515 Clinical Pathology (3 cr.) Basic human pathology is examined from a systemic and cellular level, pathogenesis and various disease states. Topics include histology, inflammation and repair, endocrine, cardiovascular, pulmonary, musculoskeletal, GI and GU pathology.
Every Year, Summer
PY 516 Clinical Pharmacology II (2 cr.) This continuation of Clinical Pharmacology I emphasizes commonly prescribed therapeutic agents. Every Year, Spring

PY 517 Human Anatomy (4 cr.) This course focuses on dissection of the human body with particular attention to the embryologic origin and relationship of organ systems. Emphasis is placed on internal organs with clinical correlation to anatomic condition. Every Year, Summer

PY 517L Human Anatomy Lab (0 cr.) Lab to accompany PY 517. (6 lab hrs.) Every Year, Summer

PY 526 Principles of Epidemiology ( 3 cr.) This course in epidemiology directs itself toward application of epidemiological principles. The course involves analysis of prospective and retrospective studies, cross-sectional studies and experimental epidemiology. Both communicable and chronic disease case studies are used, as well as case studies of occupationally induced diseases. Every Year, Summer

PY 536 Biostatistics ( 3 cr.) This course covers the application of statistical techniques to the biological and health sciences. Emphasis is on mathematical models, collection and reduction of data, probabilistic models estimation and hypothesis testing, regression and correlation, experimental designs and non-parametric methods. Every Year, Summer

PY 546 Ethics in Health Care Delivery ( $\mathbf{3}$ cr.) This course provides an opportunity for identifying, analyzing and resolving ethical dilemmas that will be encountered in professional practice. Issues are examined using the basic principles of biomedical ethics that include respect for persons, truth telling, justice, beneficence and integrity. Every Year, Summer

PY 572 Medical Microbiology and Infectious Diseases ( 4 cr .) This detailed study of microorganisms and the diseases they cause in man includes consideration of infectious disease microorganisms including their biochemical, serological and virulence characteristics, and clinical manifestations. An organ system approach is used to examine the fundamentals of pathogenicity, host response, epidemiological aspects of infectious disease, as well as clinical manifestations, diagnosis and treatment of infections. The laboratory stresses techniques used in specimen collection and handling, isolation and identification of microorganisms, and the interpretation of the results and correlation with clinical condition. Every Year, Fall

PY 572L Medical Microbiology Lab (0 cr.) Lab to accompany PY 572. (2 lab hrs.) Every Year, Fall

PY 608 Graduate Seminar ( 4 cr.) This seminar prepares students for the specific requirements of entering professional practice. Faculty active in the profession cover such issues as malpractice coverage, licensure regulation, risk management and legal issues, and aspects of the financing of health care. Lab sessions are designed as small group seminars. Through guided discussion in these small seminar settings, students explore the current literature and thinking on the competencies for the physician assistant profession. Every Year, Summer

PY 608L Graduate Seminar Lab (0 cr.) Lab to accompany PY 608. (1.5 lab hrs.) Every Year, Summer

PY 611 Clinical Residency I ( 3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven six-week clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Summer

PY 612 Clinical Residency II ( $\mathbf{3}$ cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven six-week clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Summer

PY 613 Clinical Residency III ( 3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven six-week clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Summer

PY 614 Clinical Residency IV (3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven six-week clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Fall

PY 615 Clinical Residency V ( $\mathbf{3}$ cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven sixweek clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Fall

PY 616 Clinical Residency VI (3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven sixweek clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Fall

PY 617 Clinical Residency VII (3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven sixweek clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Spring

PY 618 Clinical Residency VIII (3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven sixweek clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Spring

PY 619 Clinical Residency IX (3 cr.) Upon successful completion of the didactic phase, the PA student undertakes an intensive course of study requiring the application of skills and concepts acquired during the earlier course work. Each student rotates through seven sixweek clinical disciplines and two four-week electives at varying sites throughout Connecticut, Massachusetts and Rhode Island. The core rotations are: family medicine/primary care, internal medicine, general surgery, emergency medicine, obstetrics/gynecology, pediatrics and psychiatry. Supplemental electives include a wide variety of medical, surgical and pediatric subspecialties. Every Year, Spring

PY 676 Comprehensive Examination ( 2 cr.) This comprehensive examination is a capstone of the physician assistant program. The purpose of the exam is twofold. First, to ascertain if the student has both the broad and specific knowledge expected of someone holding a master's degree. Second, to determine whether the student has been able to integrate knowledge obtained from individual courses into unified concepts that link the students' own specialization to other fields of study. The student is given an oral exam, a written examination and a clinical skills examination in the form of an Objective Score of Clinical Evaluation (OSCE). Every Year, Summer

## Public Relations (PRR)

## PRR 501 Principles and Theories of Public Relations

( 3 cr .) Students are introduced to the growing body of knowledge in the discipline and gain expertise that contributes to professional competence in public relations. Students examine the function of public relations in organizations and society, review contemporary and historical roles of public relations professionals and explore the practice of public relations in various public and private settings. Students also learn the latest theoretical approaches to public relations and apply these approaches to contemporary public relations management practices. Every Year, Fall

## PRR 502 Public Relations Research Methods (3 cr.)

This course examines the applied use of research in public relations program development. Students learn methodologies appropriate for conducting secondary analyses and primary research. Both quantitative and qualitative methods are addressed, such as secondary analysis, content analysis, survey research, focus groups, participant observation, case study and experimentation. Every Year, Fall

PRR 503 Public Relations Research Design (3 cr.) This course focuses on the practical aspects of designing and implementing a public relations research project. Students develop problem statements, conduct literature reviews,
write research questions and prepare research proposals. Ethical and methodological issues involved in research design are discussed. The class also familiarizes students with IRB protocols and helps them hone scholarly and professional writing skills, including the proper use of citations. Prerequisites: PRR 501, PRR 502; Every Year, Spring

## PRR 504 Law and Ethics in Public Relations ( 3 cr .)

 Students review laws and regulations that impact public relations professionals and become familiar with industry standards for ethically conducting public relations. The course aims to instill an appreciation for freedom of expression and the First Amendment; to impart a functional understanding of legal rules and principles relevant to public relations practice in the U.S.; to enhance students' ability to identify the moral dimensions of issues that arise in public relations practice; and to develop analytical and critical thinking skills that encourage students to make and justify ethical decisions. Students also explore links between unethical public relations practices and heightened legal regulation in the field. Every Year, FallPRR 505 Public Relations Writing ( 3 cr.) This course helps students develop professional-quality public relations writing skills. Students prepare a variety of public relations materials, such as news releases and other media materials; copy for internal magazines, reports, newsletters, brochures, institutional/advocacy advertising; video/audio scripts; website copy; and speeches. Upon completion of this course, students have a professional portfolio of public relations writing samples. Every Year, All

PRR 506 Public Relations Management (3 cr.) This course focuses on the business management aspects of public relations, such as policy formation, project direction, resource management, client relations, budgeting and counseling. Special emphasis is placed on public relations' contribution to an institution's mission and effectiveness. Prerequisite: PRR 501; Every Year, All

## PRR 507 Strategic Planning in Public Relations (3 cr.)

 This course familiarizes students with the public relations strategic planning process. Students examine contemporary case studies that demonstrate the public relations planning process and apply what they have learned to the development and presentation of a public relations campaign plan for a client. Prerequisite: PRR 501; Every Year, AllPRR 510 Crisis Management ( $\mathbf{3}$ cr.) This course examines institutional crisis communication from a management perspective with an emphasis on crisis prevention, planning and response. Students are required to read and discuss selected articles from the crisis management literature, research and develop case studies of contempo-
rary crises, and participate in simulations designed to develop professional expertise and practical skills in crisis management, including the management of information, management of public communication, strategic planning, problem solving, message production and issues management. Every Year, All

PRR 511 International Public Relations (3 cr.) This course focuses on the practice of public relations across borders. Students review public relations professional standards and practices in a range of nations and examine factors that influence the effectiveness of international public relations programs and campaigns, such as culture, language, law and economic and social factors. Prerequisite: PRR 501; Every Year, All

PRR 512 Investor Relations ( $\mathbf{3} \mathbf{c r}$.) Students study the function of investor relations in corporations and examine the role of investor relations specialists charged with communicating financial information about companies to the financial media, SEC, financial analysts, shareholders and others in the financial community. Students learn how to integrate finance, communication, marketing and securities law compliance in efforts to maximize shareholder wealth. Every Year, All

PRR 514 Public Relations and New Media (3 cr.) This course addresses the impact of new media on public relations. It focuses on conducting public relations campaigns online and responding to public relations issues via new media, such as social networking and bookmarking sites, blogs, podcasts/vodcasts, discussion boards and conferences, wikis and mobile media. Every Year, All

## PRR 531 Graduate Internship in Public Relations

( 3 cr ) Students complete a minimum of 90 hours of professional fieldwork supervised by the program director and a qualified field supervisor. Approval of the program director is required. Every Year, All

## PRR 601 Public Relations Professional Project ( 6 cr.)

Students develop a professional research project under the direction of program faculty. Prerequisites: PRR 501, PRR 502, PRR 503; Every Year, All

PRR 602 Public Relations Research Thesis ( 6 cr.)
Students develop a research thesis under the direction of program faculty. Prerequisites: PRR 501, PRR 502, PRR 503; Every Year, All

Courses offered as needed
PRR 513 Issues Management in Health Care (3 cr.)
PRR 515 Special Topics in Public Relations ( 3 cr .)
PRR 606 Independent Study (3 cr.)

## Radiologist Assistant (RA)

RA 505 Clinical Pharmacology I (3 cr.) This distance education course covers the classification, mechanism of action, toxicity and clinical use of therapeutics agents. Side effects, indications, dose response and management of therapeutics are emphasized. Every Year, Fall

RA 517 Human Anatomy ( 4 cr ) This course focuses on dissection of the human body with particular attention to the embryologic origin and relationship of organ systems. Emphasis is placed on internal organs with clinical correlation to anatomic condition. Every Year, Summer

RA 517L Human Anatomy Lab (0 cr.) Lab to accompany RA 517. (6 lab hrs.) Every Year, Summer

RA 518 Imaging Pathophysiology (3 cr.) The content focuses on the characteristics and manifestations of disease caused by alterations or injury to the structure or function of the body. Concepts basic to pathophysiology as well as common disease conditions are studied and serve as prototypes in understanding alterations that occur in the major body systems. Emphasis is placed on the characteristic manifestations and image correlation with these pathologies observed through diagnostic imaging. For radiologist assistant majors only. Every Year, Summer
RA 520 Radiation Safety and Health Physics (2 cr.) This course provides an understanding of the protection of individuals from the harmful effects of ionizing radiation. Content includes an overview of the regulatory bodies and patient radiation safety regulations affecting the diagnostic imaging environment. The interaction of ionizing radiation with matter, units of exposure and dose, radiation detection and measurement devices are considered. Practical techniques and QA/QC procedures for reducing patient and operator risk of exposure to ionizing radiation are discussed. Every Year, Summer

## RA 530 Image Critique and Pathologic Pattern Recog-

 nition I (3 cr.) Basic imaging interpretation skills are presented to differentiate normal and abnormal structures in the skeletal, respiratory and cardiovascular systems, head and soft tissue neck across the lifespan. Students develop an understanding of the correlation of anatomy, pathology and physiology as it relates to radiologic imaging and interpretation. Protocols for drafting memoranda of initial observations based on image assessment are included. Guest lectures are provided. This course also includes imaging post processing. The content is designed to establish knowledge in the fundamentals of digital image post processing that support guided skill development using clinical based imaging workstations. Every Year, Fall
## RA 531 Image Critique and Pathologic Pattern

Recognition II (3 cr.) Basic imaging interpretation skills
are presented to differentiate normal and abnormal structures in breast, gastrointestinal and genitourinary systems across the lifespan. Students develop an understanding of the correlation of anatomy, pathology and physiology as it relates to radiologic imaging and interpretation. Protocols for drafting memoranda of initial observations based on image assessment are included. Guest lectures are provided. This course also includes image post processing. The content is designed to establish a knowledge of the fundamentals of digital image post processing that support guided skill development using clinical based image workstations. Every Year, Spring

RA 532 Interventional Procedures I ( $\mathbf{3}$ cr.) This course focuses on invasive procedures expected to be performed by the radiologist assistant. Students develop an understanding of the correlation of anatomy, pathology and physiology as it relates to radiologic imaging and interpretation with an assessment of need for interventional procedures across the lifespan. Procedures related to skeletal, respiratory and cardiovascular and head and neck systems are discussed, including but not limited to arthrograms, lumbar punctures, PICC, central venous lines, venogram, fistulograms, organ biopsies and thoracentesis. Quality improvement methods are emphasized. Every Year, Fall

RA 535 Interventional Procedures II (3 cr.) This course focuses on invasive procedures expected to be performed by the radiologist assistant. Students develop an understanding of the correlation of anatomy, pathology and physiology as it relates to radiologic imaging and interpretation with an assessment of need for interventional procedures. Procedures related to the breast, gastrointestinal and genitourinary systems across the lifespan are discussed, including but not limited to breast aspiration, nephrostogram, loopogram, gastric and T-tube check, organ biopsies and paracentesis. Quality improvement methods are emphasized. Every Year, Spring

## RA 542 Patient Assessment, Management and

Education (3 cr.) The course facilitates the student's understanding of the theoretical basis of patient assessment, management and education across the lifespan. The content reinforces the critical thinking model to aid in the development of interviewing skills and assessment techniques. Assessment of body systems, not limited to genitourinary, gastrointestinal, cardiovascular, breast and central nervous system are introduced. Techniques to develop hypotheses regarding nature and origin of patient's problems are explored. Every Year, Fall

RA 545 Research Methods and Design (3 cr.) Students explore ethical issues in medical research, develop a research project, collect data and perform analysis using
statistical programs for computers. A presentation is developed and various computer presentation techniques are employed to present student project data. Students work individually on the project and require the approval of the instructor to pursue a particular topic. Every Year, Fall

RA 550 Clinical Seminar I (1 cr.) This distance education course requires students to present a minimum of two case studies during the academic semester. Based on the case study requirements of the radiologist assistant examination criteria, each student is responsible for patient history, clinical correlation, explanation of imaging procedures, evaluation of imaging studies and identification of pertinent anatomy. Students may choose a minimum of one modality for discussion per case study. Students are required to participate in discussions regarding each weekly case study. Every Year, Spring

RA 551 Clinical Seminar II (1 cr.) This distance education course requires students to present a minimum of two case studies during the academic semester. Based on the case study requirement of the radiologist assistant examination, students are responsible for patient history, clinical correlation, explanation of imaging procedures, evaluation of imaging studies and identification of pertinent anatomy. Every Year, Summer

RA 552 Clinical Seminar III (3 cr.) This distance education course requires students to present a minimum of two case studies during the academic semester. Based on the case study requirement of the radiologist assistant examination, students are responsible for patient history, clinical correlation, explanation of imaging procedures, evaluation of imaging studies and identification of pertinent anatomy. Every Year, Fall

RA 570 Radiologist Assistant Clinical I (3 cr.) This course provides students with a clinical experience over a 15 -week period. Students are required to attend clinical three consecutive days per week. The areas of experience include general radiography, fluoroscopic procedures and interventional procedures. The experience also includes advanced imaging modalities such as magnetic resonance imaging, computer tomography, mammography, positron emission tomography and ultrasound. Application of skills related to patient care and management, radiographic pattern recognition and procedural variances are employed. Students must complete American Registry of Radiologic Technologists competency requirements. Every Year, Spring

RA 571 Radiologist Assistant Clinical II (5 cr.) This course provides students with a clinical experience over a

15-week period. Students are required to attend clinical four consecutive days per week. The areas of experience include general radiography, fluoroscopic procedures and interventional procedures. The experience also includes advanced imaging modalities such as magnetic resonance imaging, computer tomography, mammography, positron emission tomography and ultrasound. Application of skills related to patient care and management, radiographic pattern recognition and procedural variances are employed. Students must complete American Registry of Radiologic Technologists competency requirements. Every Year, Summer

RA 572 Radiologist Assistant Clinical III (5 cr.) This course provides students with a clinical experience over a 15 -week period. Students are required to attend clinical five consecutive days per week. The areas of experience include general radiography, fluoroscopic procedures and interventional procedures. In addition, experience includes advanced imaging modalities such as magnetic resonance imaging, computer tomography, mammography, positron emission tomography and ultrasound. Application of skills related to patient care and management, radiographic pattern recognition and procedural variances are employed. Students must complete American Registry of Radiologic Technologists competency requirements. Every Year, Fall

RA 573 Radiologist Assistant Clinical IV (5 cr.) This course provides students with a clinical experience over a 15 -week period. Students are required to attend clinical five consecutive days per week. The areas of experience include general radiography, fluoroscopic procedures and interventional procedures. In addition, experience includes advanced imaging modalities such as magnetic resonance imaging, computer tomography, mammography, positron emission tomography and ultrasound. Application of skills related to patient care and management, radiographic pattern recognition and procedural variances are employed. Students must complete American Registry of Radiologic Technologists competency requirements. Every Year, Spring

RA 590 Thesis I ( $\mathbf{1} \mathbf{~ c r}$.) The focus of this course is to further develop the paper written in RA 545 . Students work on improving the abstract; introduction and literature review; developing the results, discussion, conclusion and recommendation sections of the thesis. At the conclusion of the course the student should have rough draft of a five-chapter thesis. Every Year, Spring

RA 591 Thesis II ( 2 cr .) This course is a continuation of RA 590 Thesis I. Each student produces a final fivechapter thesis and is required to present the completed thesis. Every Year, Summer

## Spanish (SP)

SP 501 Spanish Grammar (3 cr.) This intensive study of the Spanish language at the advanced level builds on students' prior knowledge of the forms and paradigms of Spanish. Students receive instruction in verb tense usage, sentence syntax, lexical choices, nuances of word order and idiomatic usage. Emphasis is placed on composition skills and clarity of expression. Exercises to solidify knowledge are used extensively. Every Third Year, Fall and Spring

SP 517 Literary Genres (3 cr.) Literary genres and their manifestations in Spanish and Spanish-American literature are studied in depth in this course. Every Third Year, Fall

SP 528 Spanish-American Literature (3 cr.) This study of the major literary productions from Spanish America begins with the Conquest, continues through the Colonial period, Independence, modernism, and early 20th-century realism, and concludes with manifestations of late 20th-century experimentation. Every Third Year, Fall

SP 535 Nineteenth-Century Literature of Spain (3 cr.) Students in this course study the major works of poetry, drama and novel of 19th-century Spain. Movements include romanticism, realism and naturalism. Major authors considered are Espronceda, Zorrilla, Perez Galdos and Alarcon. Every Third Year, Spring

SP 548 Golden Age Drama and Poetry ( 3 cr.) This study of the major dramatists and poets of the Siglo de Oro (16th and 17th centuries) of Spain covers Renaissance and Baroque styles. Major authors considered include Lope de Vega, Tirso de Molina, Calderon de la Barca, Garcilaso and Gongora. Every Third Year, Spring

## SP 565 Contempory Spanish-American Fiction:

 "Cien años de soledad" and "La casa de los espíritus"( 3 cr .) This course pairs two of the most highly acclaimed and frequently discussed novels of the second half of the 20th-century Spanish America: "Cien años de soledad" by Nobel Prize winner, Colombian, Gabriel Garcia Marquez (1967) and "La casa de los espíritus" by Chilean, Isabel Allende (1982). Students read and discuss both novels in depth in terms of their portrayals of Spanish-American history and culture and analyze the relationship between the two novels to develop an understanding of Allende's challenge to Márquez's cosmovision and sense of telos. Prerequisite: three literature courses taught in Spanish or acceptance into MAT program in Spanish. Every Other Year, Fall

SP 570 The Modern Spanish Short Story (3 cr.) The short story as a genre as well as 19th- and 20th-century masterpieces written in Spain and Latin America are explored with close literary and linguistic analysis of each text and also consideration of its cultural context. Every Year, Summer

SP 571 The Romance Languages ( $\mathbf{3} \mathrm{cr}$.) This linguistics course examines the origins and development of Romance languages with particular attention to French and Spanish. Every Year, All

SP 573 Contemporary Drama (3 cr.) Contemporary drama from Spain and Spanish America is studied in depth with close literary analysis of texts in combination with a consideration of their cultural contexts. Every Third Year, Fall

SP 576 The Spanish Caribbean ( $\mathbf{3}$ cr.) This course studies the peoples, history and society of Puerto Rico, Cuba and the Dominican Republic as well as their artistic and literary expression. Also, features of the Spanish language (semantics and grammar) as spoken in the Caribbean are examined. Every Third Year, Spring

Courses offered as needed
SP 572 Hispanic Culture (3 cr.)


[^0]:    Courses offered as needed
    MA 300 Special Topics (3 cr.)
    MA 400 Special Topics in Math ( 3 cr .)
    MA 421 Advanced Algebra (3 cr.) Prerequisite: MA 321
    MA 441 Complex Variables ( 3 cr.) Prerequisites: MA 242, MA 305
    MA 451 Elements of Point-Set Topology (3 cr.)
    Prerequisite: MA 341

[^1]:    ED 575 Teacher Discourse: Language and Communication Issues in the Elementary Classroom (3 cr.) This
    course examines the communication systems of educa-

[^2]:    Courses offered as needed
    IB 611 International Corporate Finance ( $\mathbf{3}$ cr.)
    Prerequisites: FIN 600, IB 600

[^3]:    Courses offered as needed
    MK 610 Research for Marketing and Business Decisions (3 cr.) Prerequisite: MK 600
    MK 611 Managing Marketing Communications (3 cr.)
    Prerequisite: MK 600
    MK 612 New Product Marketing ( 3 cr .) Prerequisite: MK 600
    MK 613 Marketing Planning (3 cr.) Prerequisite: MK 600
    MK 620 Applied Consumer Behavior Research (3 cr.)
    Prerequisite: MK 600

