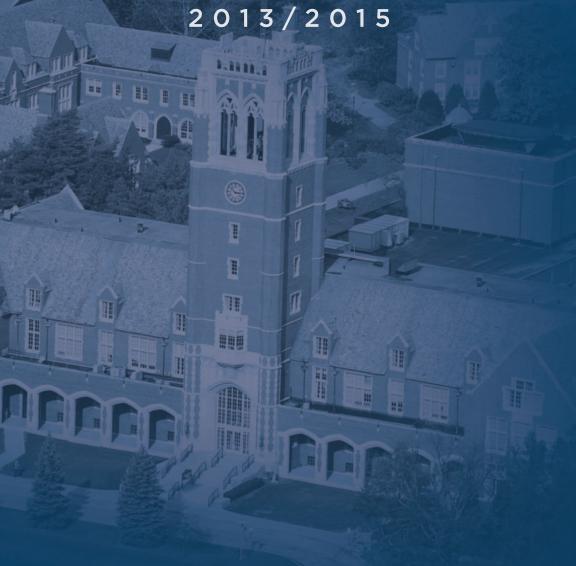


UNDERGRADUATEBULLETIN



John Carroll University Undergraduate Bulletin 2013-2015

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NON-DISCRIMINATION POLICY

John Carroll University is committed to inclusion and diversity as constitutive elements of our Jesuit Catholic identity. As reflected in the University's vision, mission, core values, and strategic initiatives, John Carroll welcomes individuals who will contribute to its mission and goals. Our pursuit of excellence demands that we come to understand and embrace the richness that each person brings to the University community.

In a manner consistent with its Jesuit Catholic heritage, the University maintains and enforces a policy of equal opportunity. John Carroll University does not discriminate based on race, age, color, sex, sexual orientation, religion, ethnic or national origin, disability, Vietnam veteran status, or special disabled veteran status. Discrimination or harassment of members of the University community strikes at the very heart of this institution and will not be tolerated.

John Carroll University

1 John Carroll Boulevard University Heights, Ohio 44118-4581 (216) 397-1886 Voice/TTY www.jcu.edu

OFFICE	LOCATION	TELEPHONE
Admission	Rodman Hall	216-397-4294
Academic Deans		
Arts and Sciences	Administration Building, West Wing	216-397-4287
Boler School of Business	School of Business Wing	216-397-4391
Athletic Director	Tony DeCarlo Varsity Center	216-397-4416
Business Office		
Accounts Payable	Rodman Hall	216-397-4440
Carroll Card Office	Administration Building	216-397-4961
Payroll	Rodman Hall	216-397-4456
Student Service Center	Administration Building	216-397-4494
Campus Ministry	Fritzsche Religious Center	216-397-4717
Campus Safety Services	Lombardo Student Center	216-397-4600
Center for Career Services	2563 S. Belvoir Boulevard	216-397-4237
Center for Service and Social Action	Administration Building	216-397-4698
Center for Global Education	Administration Building	261-397-4320
Center for Student Diversity		
and Inclusion	Lombardo Student Center	216-397-4185
Dean of Students	Lombardo Student Center	216-397-3010
Enrollment Services	Rodman Hall	216-397-4252
Financial Aid	Rodman Hall	216-397-4248
Graduate Studies		
College of Arts & Sciences	Administration Building	216-397-4284
Boler School of Business	School of Business Wing	216-397-1970
Human Resources	Rodman Hall	216-397-4976
Information Technology Services	Rodman Hall	216-397-4261
Library Main Desk	Grasselli Library	216-397-4233
Registrar	Administration Building, West Wing	216-397-4291
Registration	Rodman Hall	216-397-6000
Residence Life	Lombardo Student Center	216-397-4408
Services for Students with		
Disabilities	Administration Building (Voice/TTY)	216-397-4967
Student Health Center	Murphy Hall	216-397-4349
Student Union	Lombardo Student Center	216-397-4230
University Advancement	Rodman Hall	216-397-4322
Marketing and Communications	Rodman Hall	216-397-4321
University Counseling Center	2567 S. Belvoir Boulevard	216-397-4283
ALL OTHER OFFICES		216-397-1886

This *Bulletin* has been edited by James Krukones and Eileen Egan of the Office of the Provost and Academic Vice President. Suggestions and corrections may be sent to <code>jkrukones@jcu.edu</code>.

Information is accurate as of May 31, 2013. The University reserves the right to make changes, including modifications in degree programs and their requirements, and revisions in the schedule of charges for tuition, fees, and other expenses. Such changes will be posted conspicuously and communicated to students through public announcements and other channels.

A separate bulletin is published for Graduate Studies. In addition, a schedule of classes appears online prior to every fall, spring, and summer term.



Rev. Robert L. Niehoff, S.J., Ph.D., President, John Carroll University

General Information

Historical Sketch

John Carroll University, one of twenty-eight colleges and universities established in the United States by the Society of Jesus, was founded as St. Ignatius College in 1886. It has been in continuous operation as a degree-granting institution since that time. In 2011 the University celebrated its 125th anniversary.

In 1923 the college was renamed John Carroll University, after the first archbishop of the Catholic Church in the United States. In 1935 it was moved from its original location on the West Side of Cleveland to its present site in University Heights, a suburb ten miles east of downtown Cleveland.

In September 1968 the University made the transition from full-time male enrollment to a fully coeducational institution as women were admitted to the College of Arts and Sciences for the first time.

Jesuit Tradition

As a Jesuit university, John Carroll University draws upon the intellectual resources and educational experience of the Society of Jesus, which has operated colleges and universities for more than four centuries. Jesuits on the faculty and in the administration help impart the particular character and value of Jesuit education that make John Carroll University a unique institution in its region. In 2005 the Reverend Robert L. Niehoff, S.J., took office as the University's twenty-fourth president. A full-time faculty of approximately 200 men and women, religious and lay, share the educational enterprise of service to its students and the community.

University Mission

John Carroll University is a private, coeducational, Catholic, and Jesuit university. It provides programs in the liberal arts, sciences, education, and business at the undergraduate level, and in selected areas at the master's level. The University also offers its facilities and personnel to the Greater Cleveland community.

As a university, John Carroll is committed to the transmission and enrichment of the treasury of human knowledge with the autonomy and freedom appropriate to a university. As a Catholic university, it is further committed to seek and synthesize all knowledge, including the wisdom of Christian revelation. In the pursuit of this integration of knowledge, the University community is enriched by scholarship representing the pluralistic society in which we live. All can participate freely in the intellectual, moral, and spiritual dialog necessary to this pursuit. Within this dialog, in which theological and philosophical questions play a crucial role, students have the opportunity to develop, synthesize, and live a value system based on respect for and critical evaluation of facts; on intellectual, moral, and spiritual principles which enable

General Information

them to cope with new problems; and on the sensitivity and judgment that prepare them to engage in responsible social action.

In a Jesuit university, the presence of Jesuits and colleagues who are inspired by the vision of Saint Ignatius Loyola, founder of the Society of Jesus in 1540, is of paramount importance. This vision, which reflects the value system of the Gospels, is expressed in the *Spiritual Exercises*, the source of Jesuit life and mission. To education the Jesuit spirit brings a rationality appropriately balanced by human affection, an esteem for the individual as a unique person, training in discerning choice, openness to change, and a quest for God's greater glory in the use of this world's goods. Commitment to the values that inspired the *Spiritual Exercises* promotes justice by affirming the equal dignity of all persons and seeks balance between reliance on divine assistance and natural capacities. The effort to combine faith and culture takes on different forms at different times in Jesuit colleges and universities. Innovation, experiment, and training for social leadership are essential to the Jesuit tradition.

At the same time, John Carroll University welcomes students and faculty from different religious backgrounds and philosophies. Dedicated to the total development of the human, the University offers an environment in which every student, faculty, and staff person may feel welcomed. Within this environment there is concern for the human and spiritual developmental needs of the students and a deep respect for the freedom and dignity of the human person. A faculty not only professionally qualified, but also student-oriented, considers excellence in interpersonal relations as well as academic achievement among its primary goals.

The University places primary emphasis on instructional excellence. It recognizes the importance of research in teaching as well as in the development of the teacher. In keeping with its mission, the University especially encourages research that assists the various disciplines in offering solutions to the problems of faith in the modern world, social inequities, and human needs.

The commitment to excellence at John Carroll University does not imply limiting admissions to extremely talented students only. Admission is open to all students who desire and have the potential to profit from an education suited to the student's needs as a person and talents as a member of society.

The educational experience at John Carroll University provides opportunities for the students to develop as total human persons. They should be well grounded in liberalizing, humanizing arts and sciences; proficient in the skills that lead to clear, persuasive expression; trained in the intellectual discipline necessary to pursue a subject in depth; aware of the interrelationship of all knowledge and the need for integration and synthesis; able to make a commitment to a tested scale of values and to demonstrate the self-discipline necessary to live by those values; alert to learning as a lifelong process; open to change as they mature; respectful of their own culture and that of others; aware of the interdependence of all humanity; and sensitive to the need for social justice in response to current social pressures and problems.

Vision, Mission, Core Values and Strategic Initiatives Statement (VMCVSI)

Vision

John Carroll University will graduate individuals of intellect and character who lead and serve by engaging the world around them and around the globe.

Mission

As a Jesuit Catholic university, John Carroll inspires individuals to excel in learning, leadership, and service in the region and in the world.

Core Values

The University's core values include a commitment to learning in order to create:

- An environment of inquiry which embraces Jesuit Catholic education as a search for truth where faith and reason complement each other in learning. In pursuit of our educational mission, the University welcomes the perspectives and participation in our mission of faculty, staff, students, and alumni, of all faiths and of no faith.
- A rigorous approach to scholarship that instills in our graduates the knowledge, eloquence, sensitivity, and commitment to embrace and to live humane values.
- A campus committed to the intellectual, spiritual, emotional, and physical development of each student.
- An inclusive community where differing points of view and experience are valued as opportunities for mutual learning.
- A culture of service and excellence that permeates every program and office.
- A commitment to sharing our gifts in service to each other and the community.
- A campus that responds to demographic, economic, and social challenges.
- An appreciation that our personal and collective choices can build a more just world.

Strategic Initiatives

The following initiatives are essential to the University being recognized as a center of learning and service:

- Create a diverse community of faculty, staff, alumni, and friends dedicated to advancing the University's vision, mission, and core values.
- Create a learning community of outstanding teacher-scholars characterized by the commitment to student achievement.

General Information

- Create a talented cohort of service-oriented staff committed to achieving and being recognized as a center of learning and service.
- Recruit, enroll, retain, and graduate a talented, diverse student body prepared for today's global reality and committed to learning, leadership, and service that will engage the world.
- Secure resources necessary to foster an extraordinary learning experience and promote John Carroll's mission as a Jesuit Catholic university.

Assist in responding to demographic, economic, and social challenges in our region in order to support investment and employment opportunities and build confidence in our shared future

Assessment of Student Learning

An integral component of understanding and improving the student experience is a coordinated program of assessing student learning. Assessment of student learning is a University-wide effort, including both academic and student affairs, with the support of the University administration. The assessment program requires the systematic collection of evidence in order to both document and improve student learning. Ultimately, the information collected as part of the assessment program serves as a basis for curricular reform, program development, budget allocation, and strategic planning.

Effective assessment of student learning relies on collaboration between students, faculty, and administrative staff. Assessment of student learning occurs in the academic major, the Core Curriculum, and student life. Student participation in the assessment program—through surveys, tests, course assignments, and interviews, among other things—is essential to meeting the University's commitment to student learning.

An assessment advisory committee is the primary oversight and recommending body for the student outcomes assessment programs of the University, including the formation of institution-wide student learning goals, as well as the development, implementation, and review of the assessment programs across the University. The advisory committee is comprised of faculty members from across disciplines, the library director, and representatives from student affairs. The committee is chaired by the Assistant Provost for Institutional Effectiveness.

Academic Divisions

The University maintains two major academic divisions: the College of Arts and Sciences and the John M. and Mary Jo Boler School of Business. The enrollment in Fall 2012 totaled approximately 3,600 students. In 2011-2012 the six-year graduation rate for freshmen who entered the University in 2006 on a full-time basis was 75%.

Degree programs are offered in more than forty major fields of the arts, social sciences, natural sciences, and business. They include curricula for preprofessional study in medicine, law, dentistry, engineering, and teaching. A wide range of courses is available in day, evening, and summer sessions.

Campus

More than twenty major buildings, predominantly Gothic in architecture, and sixty beautifully landscaped acres make up the Carroll campus. Thorne Acres, a thirty-eight-acre property in nearby Chardon, provides additional recreational and educational facilities. Major buildings include the Grasselli Library and its John G. and Mary Jane Breen Learning Center, the T. P. O'Malley, S.J., Center for Communications and Language Arts, and the D. J. Lombardo Student Center. The last of these includes the Little Theatre, the Harold C. Schott Dining Hall, the Inn Between, the Underground, recreational facilities, public conference rooms, and offices for student organizations; it is also the location of the Fritzsche Religious Center containing the campus ministry offices and Saint Francis Chapel. The complex also includes the DeCarlo Varsity Center, the William H. Johnson Natatorium, and the Ralph Vince Fitness Center.

Other important facilities are the Administration Building, the Boler School of Business, Rodman Hall, Kulas Auditorium, and Wasmer and Schweickert fields for outdoor athletic events. There are eight student residence halls.

Two major additions to the campus opened in September 2003. The Dolan Center for Science and Technology is a state-of-the-art teaching and research facility. Taking over the functions of the James A. Bohannon Science Center, the Dolan Center houses the Departments of Art History and Humanities, Biology, Chemistry, Mathematics and Computer Science, Physics, and Psychology; the Center for Mathematics and Science Education, Teaching, and Technology, and the Lighting Innovations Institute. This beautiful Georgian-style building also contains many spaces intended for use by the entire University community, including study areas, conference rooms, the Muldoon Atrium, and the 250-seat Donahue Auditorium. The Don Shula Stadium is the home of the Blue Streak football, soccer, and track teams. The stadium also has offices for coaches, a weight training facility, locker rooms, athletic training room, and the Don Shula Memorabilia Room, featuring photographs and artifacts donated by the family of its namesake.

A campus-wide computer network facilitates access to the Internet and World Wide Web as well as providing a vehicle for internal communication via e-mail.

Accreditation

John Carroll University is accredited by the Higher Learning Commission of the North Central Association (230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604; tel.: (800) 621-7440; (www.ncahlc.org). The graduate and undergraduate business programs offered by the Boler School of Business are accredited by AACSB International—The Association to Advance Collegiate Schools of Business. In addition, the Department of Accountancy's programs are accredited separately by AACSB. The University's programs in Education are approved by the Ohio Board of Regents and accredited by the National Council for Accreditation of Teacher Education for the preparation of Early Childhood (EC), Middle Childhood (MC), Multi-Age (MA), and Adolescent and Young Adult (AYA) school teachers, counselors, school psychologists,

and principals, with the master's degree as the highest approved. Programs in chemistry are approved by the American Chemical Society. The Clinical Mental Health Counseling and the School Counseling Programs are accredited by the Council on Accreditation of Counseling and Related Educational Programs (CACREP).

In addition to many other affiliations in specialized areas and disciplines, the University holds memberships in the American Association of Colleges for Teacher Education, American Association of Collegiate Registrars and Admissions Officers, American Council on Education, American Schools of Oriental Research, Association of American Colleges and Universities, Association of Catholic Colleges and Universities, Association of Graduate Schools in Catholic Colleges and Universities, Association of Independent Colleges and Universities of Ohio, Council for the Advancement and Support of Education, Council of Graduate Schools in the United States, Council of Independent Colleges, EDUCAUSE – Association for Information Technology in Higher Education, Midwest Association of Graduate Schools, National Association of College and University Attorneys, National Association of Independent Colleges and Universities, National Catholic Educational Association, Ohio Athletic Conference, Ohio Foundation of Independent Colleges, Inc., and Sponsoring Consortium for the Joint Archeological Expedition to Tell el-Hesi (Israel).

John Carroll University also belongs to the Association of Jesuit Colleges and Universities (AJCU). Founded in 1970, the AJCU is a national organization that serves its member institutions, the twenty-eight Jesuit colleges and universities in the United States. For a complete list of these schools, please visit www.ajcunet.edu/institutions.

Affiliations

Through several administrative understandings, the University has cultivated a series of institutional relationships that notably enlarge the educational opportunities it offers.

The University enjoys long-standing student exchange agreements with Sophia University in Tokyo, Nanzan University in Nagoya, and Kansai Gaidai University in

Kyoto, Japan. In recent years the University has also added exchange programs with the University of Hull, England; the University of Dortmund, Germany; Rhodes University, South Africa; Rai Institute, India; and Fatih University, Turkey. In addition, the University is a member of the International Student Exchange Program (ISEP), which offers study abroad opportunities worldwide.

The University is a member of a consortium of Association of Jesuit Colleges and Universities (AJCU) which supports the Beijing Program for undergraduate study in China as well as the Casa de La Solidaridad in El Salvador.

Students can entertain several programs of international study for one semester or two, depending on the program. In England, business students can enroll in the University's Boler Business Semester in London; non-business students can enroll in the London Liberal Arts Semester in cooperation with Regent's College. In Italy, students can participate in the University's own Vatican Program in cooperation with

the Pontificia Università Urbaniana; Loyola University of Chicago's Rome Center; or John Cabot University in Rome. The University has recently established study abroad programs in Ireland (Maynooth), Spain (Madrid), and Costa Rica.

In addition to the program offerings listed above, cooperative agreements exist with programs in numerous countries on all continents.

John Carroll University also participates in agreements with many colleges and universities in the Cleveland area that offer cross-registration opportunities for all full-time undergraduate students.

In cooperation with the Catholic Diocese of Cleveland, the University provides the academic component of the formation program for college-level seminarians of the diocese.

John Carroll University's Education department affiliates with eight other Ohio colleges and universities to offer an online Consortium-based Literacy Specialist Certificate program at the graduate level.

In cooperation with Case Western Reserve University of Cleveland, the natural science departments provide a five-year joint dual-degree program by which students may receive a bachelor's degree from John Carroll University as well as a Bachelor of Engineering from Case Western Reserve University. A similar dual-degree program culminates in a Bachelor of Science in biology from John Carroll University, and a Doctor of Nursing Practice degree from Case Western Reserve University. Ursuline College and John Carroll University have an agreement whereby at least two seats per year in the Accelerated B.S.N. Program in the Breen College of Nursing at Ursuline College are designated for John Carroll graduates. In addition, Lake Erie College of Osteopathic Medicine and John Carroll University have an agreement whereby up to twenty seats per year are reserved for John Carroll students to enter LECOM's medical, dental, and pharmacy schools.

John Carroll University is affiliated with the Washington Center, which provides internships and academic seminars in Washington, D.C. This affiliation gives students the opportunity to live, work, and study full-time there while receiving a semester of academic credit from John Carroll University.

John Carroll University Alumni Association

John Carroll University has more than 40,000 alumni, each of whom has a lifetime connection to the institution. As a result, the odds of a future employer, colleague, neighbor, or service provider being found among our alumni are fairly high.

The John Carroll Alumni Association, led by a volunteer advisory board of alumni, works to establish a life-long, meaningful relationship between the University and its current and future alumni. The Association furthers the spiritual, intellectual, and social welfare of its members and the John Carroll community. It also promotes both student and alumni interests through active participation in student recruitment, community service, athletic programs, career networking, scholarships, and the Alumni Chapter program.

General Information

The Alumni Medal, the highest honor annually awarded by the Alumni Association, is presented to alumni and others who have distinguished themselves in their personal lives and careers, thereby reflecting credit upon John Carroll's educational efforts, moral principles, and philosophical tenets. Each year, the Alumni Awards program honors those who bring distinction to John Carroll University through their superior talents and selfless service.

For more information about the John Carroll Alumni Association, please contact the Office of Alumni Relations at 216-397-4336 or alumni@jcu.edu, or visit the alumni website at www.jcu.edu/alumni.



Academic Calendar 2013-2015

2013 – Fall Semester

Aug. 30 (Fri.) Final registration

Sept. 2 (Mon.) Labor Day (No classes)

Sept. 3 (Tues.) Classes begin

Sept. 3-9 (Tues.-Mon.) Course changes and late registration

Sept. 12 (Thurs.) Mass of the Holy Spirit

Sept. 17 (Tues.) Last day to change to audit or elect Pass/Fail

Sept. 19 (Thurs.) Deadline for filing graduation application for Spring

and Summer 2014 degrees for Boler School of Business and College of Arts and Sciences

Oct. 17 (Thurs.) Fall break begins after last scheduled class

Oct. 21 (Mon.) Classes resume

Nov. 26 (Tues.) Friday classes meet

Thanksgiving break begins after last scheduled class

Nov. 26 (Tues.) Deadline for course withdrawal

Dec. 2 (Mon.)

Classes resume

Dec. 14 (Sat.)

Last day of classes

Dec. 16-20 (Mon.-Fri.)

Final examinations

2014 – Spring Semester

Jan. 10 (Fri.) Final registration
Jan. 13 (Tues.) Classes begin

Jan. 20 (Mon.) Martin Luther King, Jr., Day (No classes)

Jan. 13-17 (Mon.-Fri.) Course changes and late registration

Jan. 28 (Tues.) Last day to change to audit or elect Pass/Fail option

Mar. 1 (Sat.) Spring break begins after last scheduled class

Mar. 10 (Mon.) Classes resume

Mar. 12 (Wed.) Deadline for filing graduation application for Winter

2015 degrees for Boler School of Business and

College of Arts and Sciences

Apr. 15 (Tues.) Deadline for course withdrawal

Apr. 16 (Wed.) Friday classes meet

Easter break begins after last scheduled class

Academic Calendar 2013-2015

Apr. 22 (Tues.) Classes resume

Monday classes meet

May 1 (Thurs.) Last day of classes

May 2-3 (Fri.-Sat.) Reading Days

May 5-9 (Mon.-Fri.) Final examinations

May 18 (Sun.) Commencement

2014 – Summer Sessions

The calendar for Summer Sessions will be available online about December 15, 2013.

2014 - Fall Semester

Aug 29 (Fri.) Final registration

Sept. 1 (Mon.) Labor Day (No classes)

Sept. 2 (Tues.) Classes begin

Sept. 2-8 (Tues.-Mon.) Course changes and late registration

Sept. 16 (Tues.) Last day to change to audit or elect Pass/Fail option

Sept. 18 (Thurs.) Deadline for filing graduation application for Spring

2015 and Summer 2015 degrees for Boler School of

Business and College of Arts and Sciences

Oct. 16 (Thurs.) Fall break begins after last scheduled class

Oct. 20 (Mon.) Classes resume

Nov. 25 (Tues.) Friday classes meet

Thanksgiving break begins after last scheduled class

Deadline for course withdrawal

Dec. 1 (Mon.)

Classes resume

Dec. 13 (Sat.)

Last day of classes

Dec. 15-19 (Mon.-Fri.)

Final examinations

2015 – Spring Semester

Jan. 9 (Fri.) Final registration
Jan. 12 (Mon.) Classes begin

Jan. 12-16 (Mon.-Fri.) Course changes and late registration

Jan. 19 (Mon.) Martin Luther King, Jr., Day (Offices closed)

Jan. 27 (Tues.) Last day to change to audit or elect Pass/Fail option

Feb. 28 (Sat.) Spring break begins after last scheduled class

Mar. 9 (Mon.) Classes resume

Mar. 18 (Wed.) Deadline for filing graduation applications for Winter

2015 degrees for Boler School of Business and

College of Arts and Sciences

Apr. 1 (Wed.) Friday classes meet

Easter break begins after last scheduled class

Apr. 7 (Tues.) Classes resume

Monday classes meet

Apr. 14 (Tues.) Deadline for course withdrawal

Apr. 30 (Thurs.) Last day of classes May 1-2 (Fri.-Sat.) Reading Days

May 4-8 (Mon.-Fri.) Final examinations

May 17 (Sun.) Commencement

2015 – Summer Sessions

The calendar for Summer Sessions will be available online about December 15, 2014.



Admission

Freshman Admission

Admission to John Carroll University is a very deliberate and personal process. Admission is based on a broad range of criteria which emphasize varieties of scholarship and talent. An in-depth review of each applicant will produce answers to two important questions:

- (1) Will the student succeed at John Carroll?
- (2) How will the student contribute to the John Carroll community?

Academically, the most important consideration is the overall strength of course work and academic ability as demonstrated through secondary school achievement. Extracurricular involvement, performance on standardized tests, a writing sample, and counselor and teacher recommendations are also weighed.

An effort is made to attract candidates of diverse economic, racial, and religious backgrounds, to maintain wide geographic representation in each class, and to actively seek significant talents of all kinds.

A visit to the University is encouraged for all potential students. Arrangements can be made for group information sessions and campus tours through the Office of Admission or by visiting www.jcu.edu/visit. Also, personalized visits to attend classes, meet with faculty, or experience many other aspects of our community can be arranged for high school seniors (weekdays only). Office hours are weekdays 8:30 a.m. to 5 p.m. Group presentations and tours are also offered on select Saturdays during the fall, winter, and spring.

Application Procedures

John Carroll University is an exclusive member of the Common Application, which means that the online Common Application is the only application accepted for freshman admission. Students may apply to the University online at www.commonapp.org. There is no fee to apply to John Carroll University.

- 1. Submit a Common Application to the Office of Admission. Candidates for the freshman class may apply for admission at any time during their senior year of high school, but not more than 12 months prior to entrance.
 - **Note:** Students planning on majors in business will initially apply for admission to the College of Arts and Sciences. During their sophomore year they may apply for admission to the Boler School of Business. (See procedures outlined under "Boler School of Business," page 76).
- 2. Arrange with the high school(s) attended to send complete transcripts to the Office of Admission. Students who are home-schooled should have any and all supporting documentation and transcripts submitted, such as the grading scale or methods of evaluation used, course descriptions, and any information about a distance learning program or homeschooler's association.

- 3. Ask a guidance counselor and/or teacher at the high school last attended to complete the *Teacher Evaluation* and/or the School Report through the Common Application and send it with the transcript to the Office of Admission.
- 4. Submit the results of testing by either the College Board (SAT I) or the American College Testing Program (ACT). See the "Testing" section below.
- 5. Applicants wishing to apply for need-based financial aid should complete and submit online the Free Application for Federal Student Aid (FAFSA) form found at www.fafsa.ed.gov. This form is used to award institutional as well as federal and state assistance. All applicants are strongly encouraged to submit a FAFSA, regardless of family income. The form should be submitted for processing as soon after January 1 as possible. The University's priority application deadline for financial aid is February 15.

Application Deadlines

The Office of Admission has specific admission application and notification dates for freshman applicants. Please refer to the admission website at www.jcu.edu/apply for the most current information, as dates may change from year to year. Typically, our deadlines are as follows:

- December 1: Early Action I and Priority Scholarship Consideration; decisions released the third week of December
- December 2 February 1: Rolling admission; decisions released every
 7-10 days from mid-January through mid-March
- After February 1: Rolling admission on a space-available basis

To be fully considered for all of our merit scholarship programs, students should apply for freshman admission by the priority scholarship deadline of December 1.

Enrollment Confirmation

Admitted students reserve their place in the freshman class by submitting an Enrollment Reservation Form and a \$300 enrollment deposit. This deposit is refundable until May 1 by written request and non-refundable after May 1 for applicants who fail to register or who withdraw after registration.

Freshman applicants who are not commuting (living exclusively in the permanent and primary residence of legal guardians) are required to live on campus for their first two years. Applicants must indicate on their Enrollment Reservation Form whether or not they intend to live on campus.

There is no deadline for enrollment deposits; however, May 1 is the last date which will guarantee an accepted applicant a place in the freshman class and/or a place in the residence halls. Any requests received after that date will be accepted on a space-available basis at the discretion of the Office of Admission and, in the case of residence hall status, the Office of Residence Life.

Testing

All degree-seeking freshman applicants must submit the results of testing by either the College Board (SAT I) or the American College Testing (ACT) Program.

SAT I: Applicants taking the SAT I should present the results from examinations taken in either their junior or senior year of secondary school. To have scores sent directly to the University, John Carroll's SAT code is 1342.

Students may obtain registration forms and general information either from their secondary school guidance office or from the College Board website www.collegeboard.com.

Regarding the College Board's optional Score Choice feature, John Carroll University considers an applicant's highest section scores across all SAT test dates that are submitted. Applicants should feel free to send any additional scores that they want to make available to John Carroll.

ACT: Students planning to complete the battery of tests administered through the American College Testing Program may obtain information and registration forms from their secondary school guidance office or from the ACT website www.act.org. To have scores sent directly to the University, John Carroll's ACT code is 3282. John Carroll University recommends but does not require the additional Writing Test offered by ACT.

Please Note: Students whose first language is a language other than English and/ or who attended a secondary school where instruction was in a language other than English must submit the results of the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam in lieu of SAT or ACT scores.

International Admission

Candidates for admission who officially reside in countries outside of the U.S. and are not U.S. citizens must file an application and provide official transcripts, with an accompanying grading scale, certifying their complete secondary education. The application documents and these credentials (with English translations) must be submitted at least 60 days in advance of the term for which the student intends to register.

Applicants should also present the results of one of the following qualifying examinations: the College Board (SAT I), the American College Testing (ACT), the TOEFL, or the IELTS. In addition to the baseline Common Application, international students must also have the appropriate official at their secondary school, usually a guidance counselor or college placement counselor, complete and submit the Common Application School Report. We further require international applicants to provide a letter of recommendation from a teacher or other school official, as well as a photocopy of their passport. International applicants are not eligible to submit the FAFSA unless they are dual citizens (U.S. and another country).

After being admitted, international students also must complete the Financial Guarantee Statement, which is a declaration of financial resources available to meet obligations incurred while attending the University. International students not having their own personal health insurance are *required* to purchase a student health plan.

A tentative evaluation of credit is made at the time of matriculation, subject to cancellation or revision as the student demonstrates English-language fluency and successfully completes a semester of study in a full-time (12 credit hours minimum) program. Immigration laws require foreign students on a student visa (F-1) to carry a full course of study in every semester of the academic year to maintain their status.

Transfer Admission

To be considered as a transfer student, a student must have previously earned a high school diploma or equivalent. The completion of any college-level courses while in high school alone does not make one a transfer student and would require completion and review of an application for freshman admission.

Students in good academic and behavioral standing at another accredited university, college, or junior college are welcome to apply for transfer to John Carroll University. The University considers academic record, recommendations, character, and evidence of commitment to studies when evaluating a transfer applicant for admission. John Carroll reserves the right to deny admission to any applicant.

Transfer applicants on probation, suspended, or dismissed for any reason from another accredited university, college, or junior college are ineligible for admission until one calendar year has elapsed from the date of such probation, suspension, or dismissal and will not be admitted except by special action of the Committee on Admission.

Transfer students should submit to the Office of Admission official copies of college transcripts from all colleges attended. Failure to report collegiate-level attendance at any institution will make a student liable for immediate dismissal. A high school transcript and SAT or ACT scores must be submitted ONLY for applicants who have completed fewer than 24 semester hours at a college or university. In addition, a Transfer Reference Form, found at http://sites.jcu.edu/admission/pages/apply/transfer-students/application-process/, must be submitted from the applicant's current school or the school most recently attended.

Transfer students must be in good standing at the time of application. For those who have attended only one college or university, the most recent term average and the cumulative average must be 2.0 or better to be considered for admission. For those who have attended more than one college or university, the most recent term average and the cumulative average at the home school must be 2.0 or better to be considered for admission. In addition, the cumulative average for all schools attended must be 2.0 or better. A GPA of 2.5 or above, however, is strongly recommended.

Students may apply to transfer to the University using the institution's online application found at www.jcu.edu/apply. There is no fee to apply to John Carroll University. Applications should be submitted by August 1 for the fall semester or by January 1 for the spring semester.

Student Veterans

Student veterans typically will enter John Carroll University as transfer students, even in cases where a student veteran applicant does not have previous college course work. The University will grant academic credit for military training. For complete details on the JCU Celebration of Service student veterans program, please see the website at http://sites.jcu.edu/veterans/.

Credit Evaluation

Determination of credit transferability occurs at the time of admission evaluation and decision. A listing of the applicant's courses and credits which are transferable to John Carroll University will be sent to the admitted student shortly after the admission decision has been made, provided we have an official copy of the transcript. All academic petitions of transfer courses for further consideration (e.g., divisional Core and/or special designations) must be submitted by the end of the second semester after matriculation in order to be considered. Petitions should be submitted (with course descriptions and syllabi) through our online petition process found at:

http://sites.jcu.edu/cas/pages/currentstudent-resources/undergraduate-student/.

Credit for advanced standing will be accepted from regionally accredited institutions, subject to the following restrictions: Credit will not be given for courses completed with the lowest passing grade, though these courses need not always be repeated; courses completed with a "Pass" grade will not be accepted unless it can be established that the "Pass" was the equivalent of a "C-" grade or higher; no credit will be given, even as general electives, for courses in orientation, applied arts, athletics, or technical training which do not contribute to the goals of a liberal arts education.

Transfer guides for Lakeland, Cuyahoga, and Lorain County Community Colleges are available upon request and online. The limit of transfer credit from a community college is 64 semester hours (96 quarter hours). In no instance will a degree be awarded to a transfer student unless the last 30 semester hours have been completed at John Carroll University.

Courses completed to satisfy Core requirements must conform in content to courses offered at John Carroll University. Quantitatively, credits from other schools must be within one credit hour of the Core requirements in the subject area involved. Quality points and grades are not transferred, only credit hours. Approval of application of transfer credits to a major program is determined by the chair of the major department with the approval of the appropriate dean. Most departments require that at least half of the major be completed at John Carroll University. For the specific requirements, transfer students should consult the sections of this *Bulletin* devoted to individual departments and majors.

Credit will be given for courses completed under the auspices of the Defense Activity for Non-Traditional Education Support (DANTES), providing they are equivalent to those offered by John Carroll University. Credit may also be given for military training as indicated by the American Council on Education (ACE) credit recommendations for training courses. For assistance in obtaining an official transcript of military training, please contact the Director of Veterans Affairs, LTC(R) Eric Patterson, at 216-397-4947, or at epatterson@jcu.edu.

Part-Time Admission

The University welcomes students interested in attending day or evening classes on a part-time basis (11 semester hours or fewer) and provides pre-admission counseling and other services to meet part-time students' needs.

An application form will be sent upon request or can be found online at www.jcu.edu/apply. Students are encouraged to consult with the Office of Admission about transfer of credit from other colleges and the possibility of earning advanced credit through CLEP examinations (see page 27). Qualified students with a high school diploma or GED equivalent who wish to take courses on a part-time basis may also inquire with the Office of Admission.

Part-time students transferring from community colleges or other universities must meet the requirements specified on page 19 in the section on transfer admission. After notification of admission, transfer students are sent a list of all courses accepted and the corresponding number of credits awarded.

Students interested in attending on a part-time basis are directed to the fee schedule for undergraduate courses (see page 28). Students accepted for admission for the fall semester are required to submit a \$300 non-refundable tuition deposit at the time of registration.

Financial aid may be available for part-time students. Any State of Ohio grant aid, Federal Pell Grants, and Federal Stafford Loans (subsidized and/or unsubsidized loans for students enrolled for at least six hours per semester) are available to those qualifying students demonstrating financial need who file the Free Application for Federal Student Aid (FAFSA) and notify the John Carroll Office of Financial Aid. The unsubsidized Stafford Loan requires no demonstrated need. Students applying for Federal Pell Grants and/or Stafford Loans (subsidized and unsubsidized) must meet appropriate application deadlines. Finally, many employees return to school with the help of their employers through corporate tuition reimbursement programs. It is advisable to check with the respective corporate benefits officer for information regarding tuition assistance. Refer to the Financial Aid section of this *Bulletin* for additional information (see pages 31-34).

Readmission

Students in good standing who have been absent from any of the undergraduate colleges less than a calendar year and have not attended another university during that time may be readmitted and continue at the University under the same status as when they left. These students should contact the Office of the Registrar to request permission to register and to their dean or advisor for academic counseling. Students

who have been absent from an undergraduate college for a calendar year or more or have attended another college or university during the period of absence are required to apply formally for readmission.

Students petitioning for readmission who have attended other colleges or universities must submit to the Office of Admission official transcripts from such schools along with a completed Transfer Reference Form, found at http://sites.jcu.edu/admission/pages/apply/transfer-students/application-process, before application for readmission will be considered by the Committee on Admission.

Students are held to degree and curricular requirements in force at the time of their readmission. If absence from the undergraduate college amounts to five or more years, the case for readmission will receive a special review by the Committee on Admission. Readmission, if granted, is on terms determined by this committee. At a minimum, completion of at least 30 semester hours at John Carroll upon readmission is required.

Reinstatement

Students under notice of dismissal from either of the undergraduate colleges are excluded from the University and are ineligible to apply for readmission until one semester and summer have elapsed.

Students who wish to be considered for reinstatement after the expiration of one semester and summer must submit a written petition to the Committee on Admission. This petition should include the following:

- 1. Explanation of probable reasons for the scholastic deficiencies.
- 2. The manner in which the intervening time has been spent.
- 3. Reasons why favorable consideration for reinstatement should be given.

Students who have attended other colleges or universities following notice of dismissal from either of the undergraduate colleges of John Carroll University must present official transcripts from any institutions attended before the Committee on Admission will consider the petition for reinstatement.

Students dismissed from the University or those who left on probation must submit their applications for readmission by August 1 for the fall semester and by December 1 for the spring semester.

Students who have been dismissed may not enroll in any divisions or register for courses in any session of the University.

Reinstated students must register for an appropriately reduced course load and earn the quality-point average specified by the committee at the time of reinstatement. Students who fail to meet the requirements set forth by the committee during the semester following reinstatement will be dismissed. Students who are reinstated must sign a letter of agreement to the conditions of reinstatement established by the Committee on Admission. In matters of reinstatement, the decisions of the Committee on Admission are final.

Students who have been dismissed a second time may not apply for further reinstatement.

Transient Admission

Students having a grade-point average of C (2.0 on a 4.0 scale) or better that are eligible to continue at their own college or university may enroll at John Carroll as a transient student for one term (fall semester, spring semester, or summer term). It is expected that students meet all prerequisites for the course(s) they wish to take at John Carroll. Transient students must complete a *Transient Student Registration Form*, which is available online at http://sites.jcu.edu/admission/pages/apply/transient-students/. No other documentation is needed.

Students who do not plan to return to their own colleges are not considered transient students. If a student plans to take courses for consecutive terms at John Carroll, a meeting with a representative from the Office of Admission is required to discuss the student's plan. Officially applying to the institution as a transfer student and/or supplying a transcript of previously taken college course work may be requested to verify good academic standing at the home institution.

Transient students who wish to take courses during the summer sessions should submit applications according to procedures outlined in the *Schedule of Summer Classes*, which is available online at www.jcu.edu/summer.

High school students who have completed their junior year are eligible to enter John Carroll University for two (2) courses or eight (8) hours per semester as a high school transient student. Students must meet the following criteria:

- 1. Have a GPA of 3.2 or better, and
- 2. Rank in the upper half of their high school class.

Students may register for classes for which they have the appropriate prerequisites and which are not taught at their own high schools.

They must file the high school transient student application found at http://sites.jcu.edu/admission/pages/apply/transient-students/ with the Office of Admission and present the written endorsement of the high school principal or guidance counselor certifying that the applicant meets the above requirements.

Summer Admission

Summer entrants who plan to continue studies in the fall semester as full-time students in one of the undergraduate divisions should submit applications according to freshman or transfer admission procedures. Please note that summer sessions are not designed to ease the transition between the high school and college years.

A schedule of courses is listed online at <u>www.jcu.edu/summer</u>. Transient students must be in good academic standing and complete the online application form.

Early Enrollment Program for High School Juniors

High school students who have completed their junior year may seek admission to John Carroll as full-time, degree-seeking students. They must rank in the upper 25% of their class; present their high school transcript, acceptable SAT or ACT results, letters of recommendation from their high school principal, guidance counselor, and one high school teacher; and be interviewed by an admission representative.

College Course Credit

Advanced Placement

Applicants may take advantage of the Advanced Placement Program of the College Board, which has encouraged the creation of college-level courses in high school. The AP Program offers placement examinations in a variety of subject fields each spring. Information about these examinations may be obtained through the high school or the College Board website www.collegeboard.com. The table below shows current departmental practice for AP Tests in the subjects examined. Course credit for AP courses will satisfy divisional requirements of the Core course equivalent at John Carroll. Core special designations (D, R, S, or W) are not awarded to AP courses.

AP TEST	Minimum Score Required for Credit	Semester Hours	Course Credit
Art History	4	3	AH 101
Biology	3-4 *5	4 8	BL 112, 112L BL 155-158
Biology/Environmental Science	3-5	4	BL 109, 109L
Chemistry	4 5	3 6	CH elective CH elective
Chinese	3	6	CN 201-202
Computer Science AB	3	3	CS 228
Computer Science A	3	3	CS 228
Economics Micro	3	3	EC 201
Economics Macro	3	3	EC 202

^{*}Students who earn a 5 on the AP Biology exam may: 1) receive 4 credits for BL 156/158, and enroll in BL 155 Principles of Biology I (Honors; 4 credits) *and* BL 157 Principles of Biology I Lab; **or** 2) receive 8 credits for BL 155-158 Principles of Biology I and II lecture and labs.

English Lang. & Comp.	4	6	EN 111-112
English Lit. & Comp.	4	6	EN 111-112
French	3	6	FR 201-202
German	3	6	GR 201-202
Government & Politics U.S.	4	3	PO 101
Government & Politics Comp.	4	3	PO 102
History, European	4	6	HS 201-202
History, U.S.	4	6	HS 211-212
History, World	4	6	HS elective (200 level)
Italian	3	6	IT 201-202
Japanese	3	6	JP 201-202
Latin	3	3	LT 232
Mathematics AB (or AB subscore on BC exam)	4 or 5	4	MT 135
Mathematics BC	3 4 or 5	4 8	MT 135 MT 135 & 136
Physics B*	3 4	3 8	PH elective PH 125-126 & 125L-126L
Physics C-Mech.	3 4	4 5	PH 125 & 125L PH 135 & 135L
Physics E&M	3 4	4 5	PH 126 & 126L PH 136 & 136L
Psychology	4	3	PS 101
Spanish	3	6	SP 201-202
Statistics	3 4 or 5	3 3	MT 122 MT 229

^{*}Applicants who have a score of 5 for Physics B *and* who have the equivalent of MT 136 may receive credit for PH 135-136 and PH 135L-136L.

Institutional Policy

Applicants who have not taken the Advanced Placement Tests but have attained a superior level of academic performance in high school will be permitted, on nationally normed examinations selected by the University, to demonstrate competence in English composition, languages at the intermediate level, and mathematics.

Degree credit is not given on the basis of such tests, but certain basic course requirements may be waived for students demonstrating high achievement. These students will be eligible to enroll in more advanced courses.

International Baccalaureate (IB)

Students enrolled in an IB curriculum must request a transcript from IBNA (International Baccalaureate North America) and ask them to send it directly to John Carroll. Credit will be awarded as indicated below. For courses not listed, the student must also provide a syllabus from their high school for each course being considered for transfer credit. A copy of the syllabus is sent to the departmental chair at John Carroll for their input on what transfer credit may be given. The student receives a transfer credit evaluation when the evaluation has been completed.

IB Class Equivalents				
John Carroll accep	ots Higher Lev	el course work on	ly except as no	oted below.
COURSE	IB SCORE	JCU Course Equivalent	CREDITS	CORE
BL	4,5	BL 102/102L	4	Yes
BL	6,7	BL 155-158	8	Yes
СН	5	CH 1XX	3	No
СН	6,7	CH 1XX	6	No
CS	5	CS 128	3	Yes
CS	6,7	CS 128 & 228	6	Yes
EC	5	EC 201	3	Yes
EC	6,7	EC 201/202	6	Yes
EN	6,7	EN 111/112	6	Yes
Lang (FR, GR, SP)	SL 6,7	101-102	6	Yes
Lang (FR, GR, SP)	HL 5,6,7	201-202	6	Yes
HS	6,7	HS 1XX	3	Yes
MT	5	MT 135	4	Yes
MT	6,7	MT 135-136	8	Yes
РН	5	PH 1XX/1XXL	4	Yes
РН	6,7	PH 125/L-126/L	8	Yes
PL	6,7	PL 101	3	Yes
PS	5,6,7	PS 101	3	Yes
SC	6,7	SC 245	3	Yes

College Level Examination Program (CLEP)

Adults, 21 or older, who through personal study and effort may have developed the knowledge, understanding, and skills normally associated with certain college-level courses, may be permitted to earn up to 30 semester hours of credit on the basis of high achievement on the General and/or Subject tests administered by the College Entrance Examination Board in its College Level Examination Program (CLEP). The amount of credit granted will depend on the tests taken, the scores achieved, the degree program to be pursued, and the major field. Earned CLEP credit does not convert to letter grades and does not apply toward graduation honors. Students planning to take CLEP tests should consult the Office of Admission or their academic advisor.

CLEP exams may not be used to fulfill the last 30 semester hours of credit.



Expenses

Tuition and Other Charges

Tuition and fees are fully assessed upon completion of registration.

Terms of Payment

All tuition, room and board, and fees must be paid before the academic term begins. All bills are sent to the student's University e-mail account. Students are encouraged to provide the billing name and email address of the person responsible for payment. This will assure prompt delivery to the proper party. Students who register after the billing cut-off date pay in full at the time of registration.

Students who have a balance due on their account will not be permitted to register for the next semester and will not receive grades or transcripts. Additionally, registration may be canceled for students who fail to meet their financial obligations.

The following options are available for payment of tuition and room and board:

- 1. Cash or check.
- 2. Tuition Payment Plan (fall and/or spring semester only).
- 3. Credit card. A convenience fee is charged for this service.
- 4. Electronic check (ACH). A minimal fee is charged for this service.

The Tuition Payment Plan allows a family to budget payments for the fall and spring semesters. Applications are made online through the Bursar's Office. The amount budgeted will be paid each month June 5 through March 5. Any amount not budgeted on the TPP is due before the student attends class. Any credit balance resulting from the TPP will be refunded at the conclusion of the plan for that semester.

Regular Semester Charges

TUITION (2013-2014 Academic Year)

Full-time Undergraduate Students:	
(12-18 credits)	. \$16,665.00 per semester
(\$33,330.00 annual tuition, full-time up to 36 credits, and spring semesters)	that is, 18 hours each, fall
Part-time (1-11 credits) and each hour over 18 credits.	\$1016.00 per credit
Summer Term 2013	\$700.00
Graduate credit courses:	
College of Arts and Sciences	\$695.00 per credit
Boler School of Business	\$855.00 per credit

Students who are permitted to register as auditors are charged the same amounts as other students.

FEES

Graduation—undergraduate or graduate
(payable at time of formal application for degree)\$150.00
Effective with the Spring 2014 Semester
Graduation—undergraduate or graduate late application \$175.00
International student: Application processing\$50.00
Orientation
Orientation, Transfer\$75.00
Penalty—Late Payment of tuition, room or board \$150.00
PSEO (High school transient student): Application processing \$10.00
Return check fee
Room—Late cancellation fee
Student Activities Fee, per semester
(full-time undergraduates only)
Student Health and Wellness fee, per semester
(full-time undergraduates only)
Student Technology Fee, per semester
(full-time undergraduates only)
Study abroad fee dependent on specific program
Transcript of record
Tuition Payment Plan application fee

Laboratory, computer, and television/radio course fees vary with the nature of the laboratory or course. Amounts are published in each semester's course schedule.

ROOM AND BOARD (2013-2014 Academic Year)

Other meal plans are available. Information can be obtained from the Office of Residence Life (216-397-4408).

The board charge for a semester covers the interval beginning with the day of the opening of classes and ending the final day of the examination period, excluding Thanksgiving, spring break, and other vacations as set forth in the University calendar.

Applicants who enter into residence assume full responsibility for their rooms and the contents thereof. All loss and damage occasioned by students are charged against their accounts.

A \$300 enrollment deposit is required of first-time students and is **non-refundable** after May 1. If the student will be living on campus, \$200 of the enrollment deposit will be retained as a security deposit. When the student discontinues living in the residence halls, the deposit (or remainder thereof) will be credited to the individual student's account as a credit against charges due or refunded in the instance of a credit balance.

Expenses

Fees listed above pertain to the 2013-2014 academic year. Owing to the uncertainty of prices, the University reserves the right to change fees without notice.

Refunds

The following percentages of the charge for tuition will be refunded, or credited against a balance due.

Within course-change week	. 100%
Within the second week of class	67%
Within the third week of class	33%
After the third week of class	0%

These withdrawal allowances are granted only after the student has formally withdrawn through the Office of the Registrar. Withdrawals must be made in person or in writing and are dated from the day of approval.

No allowance or rebate is made to students who are permitted to register late or to student hall residents who are permitted to spend weekends or other brief periods away from campus.

Special note for students on semester-basis tuition: There will be an adjustment in tuition only if they:

- a. Drop to fewer than 12 credit hours during or prior to course change week, or
- Completely withdraw from the University during the first three weeks of the semester.

Refunds for summer terms require the student to formally withdraw by the second day of class for a full refund and by the fifth day of class for a 50% refund. There is no tuition refund after the fifth day of class.

Tuition Insurance

The Tuition Refund Plan offers tuition and fee insurance in the event of an unforeseen mid-term medical (illness or accident) withdrawal from classes. This plan allows students to insure the value of their scholarships, grants, loans, and out-of-pocket tuition expenses. Participation in the Tuition Refund Plan is optional. Please refer to www.jcu.edu/bursar for more information.

Additional Information

Updated tuition rates, due dates, and other pertinent financial information can be found at www.jcu.edu/bursar.

Financial Aid

Policy

The primary mission of the Financial Aid Program is to assist, with some form of aid, as many as possible of the applicants accepted for admission who demonstrate financial need and/or appropriate academic achievement. Financial aid awards are tailored to meet the particular needs of the recipient within the limitations of the funds available. Financial aid is awarded with the expectation that it will be renewed each year on the basis of (1) continued financial need, (2) funds available, (3) satisfactory academic progress, and (4) timely application results.

Eligibility

To be considered for any form of aid, applicants must first be accepted for admission. Eligibility for academic merit scholarship awards is based on evaluation of the total record of achievement and promise. Eligibility for need-based aid is determined by a student's demonstrated financial need as derived from the Free Application for Federal Student Aid (FAFSA). The FAFSA and the application for admission with its supporting credentials are the only forms required from entering freshman applicants seeking need-based financial aid. Scholarships and grants are available to full-time students enrolled in any undergraduate division of the University. Some merit-based scholarships may require separate application procedures.

To Apply

The application form for federally funded, state funded, and institutional need-based aid is the FAFSA. The form is on the web at fafsa.ed.gov. To complete the FAFSA online, a Personal Identification Number (PIN) must be used. The application for a PIN may be found at www.pin.ed.gov. Any inquiries concerning financial aid and application procedures should be addressed to the Office of Financial Aid.

Renewals

All financial assistance is awarded for one academic year only. The award will remain approximately the same for four years unless financial circumstances are brought to the attention of the Office of Financial Aid, and/or appropriate academic requirements are not met. Each year students must submit the FAFSA to renew their need-based financial aid.

The Office of Financial Aid will remind students of the appropriate time to reapply for aid through the FAFSA at their home address or through their e-mail account.

Scholarships and grants given for specified periods may not be applied toward attendance during the summer sessions, are not redeemable in cash, and are not transferable

in any way (summer aid applications will be available before the end of each spring semester). All awards are subject to renewal qualifications as set forth by the Committee on Admission and Financial Aid and may be rescinded at the discretion of the committee.

Satisfactory Academic Progress

The federal Higher Education Amendments require the University to define and enforce standards of academic progress for students receiving federal or state aid. These standards are on the Financial Aid website (academic renewability criteria, www.jcu.edu/aidjcu/).

Scholarships and Grants

JCU merit scholarship programs are highly competitive and honor students whose contributions and success are measured inside the classroom and beyond. Some unique programs go beyond academic scholarships and reward commitment to leadership and service as well. A complete listing of merit scholarship opportunities offered by the institution can be found at www.jcu.edu/aidjcu/scholarships/merit.htm.

Grant aid represents the largest portion of John Carroll assistance to families every year. Merit scholarships play a significant role for the best and brightest students each year. However, need-based aid (financial support based on family income, assets, and affordability) is our best way to ensure that any and all students accepted to John Carroll University will be able to attend. To be considered for grants, a student must be matriculated in an approved degree program of study. The student must file the Free Application for Federal Student Aid (FAFSA), be making at least satisfactory academic progress, meet all GPA requirements specific to the type of aid, and meet all reapplication requirements. Renewal is limited to a maximum of eight academic-year semesters.

The full listing of institutional grant opportunities can be found at www.jcu.edu/aidjcu/grants/JCU-grants.htm.

ROTC Scholarships

The U.S. Department of the Army annually awards ROTC full-tuition scholarships on a competitive basis nationally. Four-year and three-year advance-designee scholarship winners are selected from high school students who apply from June to December of their senior year. Applications are available only for submission at www.armyrotc.com. Current college students may also apply for a variety of campusbased scholarships, when available, ranging from two to four years by contacting the Recruiting Officer, Department of Military Science, at 216-397-4421.

The scholarship provides full tuition and fees, a \$1200 yearly book allowance, and a monthly stipend of \$300 to \$500 during the normal school year. Scholarship winners who reside on campus receive free room and board each academic year. All cadets completing the program commission as a Second Lieutenant into the Regular

Army, Army Reserves, or Army National Guard. Competitive opportunities also exist for advanced follow-on education, including medical school and law school. Please consult the Military Science/ROTC website at www.jcu.edu/rotc/ for full details on scholarships, leadership training, and life as a cadet.

Federal and State Government Grants

John Carroll administers federal and state funding programs. In order to qualify for any of these programs, students must complete a Free Application for Federal Student Aid and meet the qualifications as outlined by each program. Details of the types of grant and their eligibility criteria can be found at www.jcu.edu/aidjcu/grants/federal.htm for the federal programs. State program information is located at www.jcu.edu/aidjcu/grants/state.htm.

Loan Programs

John Carroll participates in the Federal Direct Loan program as well as the Federal Perkins Loan Program. Information concerning the terms and application process for these programs can be found at www.jcu.edu/aidjcu/loans/index.htm. Private loan funding opportunities are detailed there as well.

Tuition Remission

John Carroll participates in various tuition remission and tuition exchange programs for families that work in higher education across the country. All of our programs are limited to dependent children of eligible employees if the students meet admission standards and are accepted for admission. John Carroll also participates in three programs that offer full or partial tuition remission for selected, accepted incoming freshmen. Each year the University receives more interest from students to participate in these programs than spaces available. For that reason all students are encouraged to apply for admission in a timely way. Additionally, John Carroll maintains a wait list for students admitted to the University but not originally awarded a position in one of these programs. More details are available at www.jcu.edu/aidjcu/grants/remission.htm.

Veterans Educational Benefits

Veterans Educational Benefits are available to eligible, degree-seeking veterans. Information about the program, including eligibility requirements and benefits, can be found at www.jcu.edu/aidjcu/grants/veterans.htm.

Federal Work-Study Program

The Federal Work-Study Program provides an opportunity for on-campus employment to students who have financial need. The jobs offer the student an opportunity to work in one of the academic or administrative departments on campus.

Also, a number of community service jobs are available off-campus. A FAFSA is required to establish need for either type of employment. Available jobs and the application process can be accessed at www.jcu.edu/aidjcu/jobs/index.htm.

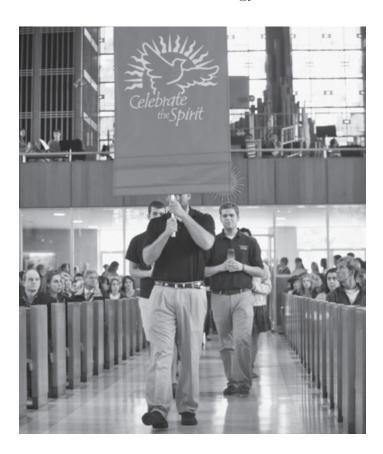
Withdrawal and Return of Title IV Funds Policy

As of Spring 2002, any student who completely withdraws from the University and is a recipient of federal Title IV financial aid is subject to the policy regarding refund and repayment of those funds. The details of this policy can be found at www.jcu.edu/aidjcu/refunds.htm.

PLEASE NOTE: This policy is independent of the percentage of tuition charged through John Carroll's refund policy.

Contact Information

The Office of Financial Aid and the Admission Office are part of the John Carroll Enrollment Division, located on the second floor of Rodman Hall. Staff from either office can be reached at 216-397-4294 or enrollment@jcu.edu.



Student Life

Campus Living

John Carroll University is committed to providing students with a residential experience focused on learning and the development of inclusive communities. Living on campus provides students with the unique opportunity to better understand who they are as individuals and how they live and learn in relationship with others. The Residence Life staff facilitates community through the development of interpersonal relationships, social and educational programming, crisis response, and conflict mediation. John Carroll has eight residence halls on its friendly campus.

The University maintains a two-year residency requirement. All entering students of traditional age need to declare their status as residents or commuters through the Enrollment Reservation Form sent by the Office of Admission. Those not commuting from home are required to live on campus during their first two years. This policy also applies to those who transfer into the University as traditional first-year students. Commuting is defined as living exclusively in the permanent and primary residence of a parent or legal guardian.

All students living on campus eat their meals in the Harold C. Schott Dining Hall in the Lombardo Student Center. Multiple meal plan options are available to meet students' needs.

John Carroll University Residence Halls

Bernet Hall (1935) Named to honor John J. Bernet, founding benefactor of the campus.

Pacelli Hall (1952) Funded largely by the Greater Cleveland Italian community and named to honor Pope Pius XII.

Dolan Hall (1955) Funded by and named for Thomas Dolan, founder and president of Dobeckmun Company, and University trustee, 1949-1972.

Murphy Hall (1964) Named in honor of William J. Murphy, S.J., dean of students at John Carroll University, 1932-1959. A renovation of Murphy Hall began in Summer 2013 and will be completed by the start of the 2014-15 academic year.

Sutowski Hall (1978) Funded by and named for Cleveland businessman Walter S. Sutowski.

Millor Hall (1981) Funded by Chicago-area alumni and named in honor of William J. Millor, S.J., long-time headmaster of the residence halls at John Carroll.

Hamlin Hall (1988) Named for University trustee and 1949 alumnus Richard M. Hamlin. This was the first residence across Belvoir Boulevard. Its architecture links the east side of the University with the main campus.

Campion Hall (1990) Named for St. Edmund Campion, S.J., as a memorial and tribute to Campion Jesuit Preparatory High School (1880-1975) in Prairie du Chien, Wisconsin

Warrensville Center Road Duplexes (2002) Two and three-bedroom apartments located along Warrensville Center Road

All of the halls accommodate both men and women. First-year students live together in Pacelli, Sutowski, Dolan, and Campion to promote class unity. Greek floors can be found in Campion and Hamlin. The residence halls also provide Healthy Living and Honors' community options for first-year students. The halls are divided into residential areas, each of which is served by a full-time professional administrator who lives in residence and maintains an office in that area. Each floor community in the residence halls is supported by a Resident Assistant. Resident Assistants are sophomore, junior, and senior students who are trained as peer helpers and community builders. Campus ministers live in the various residence halls to assist students in their growth. More information about on-campus living options, residence hall amenities, learning outcomes, and the mission of the Office of Residence Life can be found at https://sites.jcu.edu/reslife.

Residence Hall Association (RHA)

This student organization is made up of residents from each hall. Its main purposes are to plan social and educational activities for hall residents and to address issues that are of concern to the community. It also helps to plan traditional activities such as Li'l Sibs Weekend and a campus-wide Trick or Treat Night.

RHA provides an excellent opportunity for students to get involved in the residence halls. All residents are welcome to attend meetings, which are held regularly, and offer input on decisions regarding the community.

Off-Campus Living

The assistant director of residence life provides assistance to students who rent an apartment or house in University Heights or one of our neighboring cities. Students who commute from home are assisted by the director of orientation and leadership programs. All students living off campus can choose from a variety of meal plans through the dining services.

Conduct

John Carroll University, grounded in Roman Catholic and Ignatian traditions, fosters the fullest development of its students in an atmosphere of care and concern. Members of the University community are held to a high standard of behavior because of the nature of our enterprise: the education and development of students.

Self-discipline is essential in the formation of character and in the orderly conduct of social affairs within and outside the University. Therefore, students are expected to

conduct themselves as responsible members of society. The disciplinary authority of the University is exercised by the dean of students and the appropriate hearing bodies.

Student Due Process

John Carroll University recognizes students' rights within the institution to freedom of inquiry and to the reasonable use of the services and facilities of the University, which are intended for their education.

In the interest of maintaining order on campus and guaranteeing the broadest range of freedom to each member of the community, rules limit certain activities and behavior which are harmful to the orderly operation of the institution and the pursuit of its legitimate goals. All students are responsible for informing themselves about these rules, which are printed in the *Community Standards Manual* and are available on the dean of students website: http://sites.jcu.edu/deanofstudents/pages/community-standards/.

Student Activities

The Office of Student Activities at John Carroll seeks to create an active and vibrant campus culture that enhances student learning, encourages involvement, and promotes leadership development. Through the creation and advisement of co-curricular experiences, innovative technologies, assessment plans, professional development, and ethical relationships with others, it helps students gain the knowledge, skills, and attitudes necessary to be servant leaders.

The office offers many services and programs, such as Fraternity and Sorority Life, Student Union, Student Union Programming Board, late-night programming, leadership development, student organization advisement, Homecoming, Christmas Carroll Eve, Senior Celebration Week, event/facility requests, University vehicle reservations, and the posting policy. More information can be found on the student activities website: www.jcu.edu/studentactivities.

Student Union

Founded in 1920, the John Carroll University Student Union is the student government organization representing all undergraduate students. The Student Union provides the student body with official representation to the University community and is a means for concentrated student concern and activity in academics, disciplinary matters, clubs and organizations, and social programming.

The Student Union is structured so that every student of John Carroll University is a member. This guarantees every student the right to discuss and to speak out on issues facing the student and University communities.

The Student Union office is located on the lower level of the D. J. Lombardo Student Center. More information can be found on the Student Union website: www.jcu.edu/su.

Student Organizations

African-American Alliance

Allies

Alpha Epsilon Delta Kappa Kappa Gamma
Alpha Kappa Psi Knights of Columbus
Alpha Omega Labre Project
Alpha Psi Omega Lacrosse (Men's)
Alpha Sigma Nu Lacrosse (Women's)

American Chemical Society Student Affiliates

American Marketing Association

Anime Club Arrupe Scholars Beta Theta Pi

Autism Speaks U John Carroll University

Biology Club

Carroll Cinema Society
Carroll Crazies
Carroll Quidditch Club

Chi Omega

Christian Life Communities

College Democrats

Commuter Student Association

Crossfit Blue Streak
Dance Ensemble
Dance Team
Delta Tau Delta
Economics Association

Emergency Medical Services Association

European Union Simulation

Field Hockey Club Finance Association Gamma Phi Beta Habitat for Humanity

Hillel

Honors Student Association

Ice Hockey

Interfraternity Council Investment Club Italian Club

Japan Society
JCU Chess Club
JCU History Union
JCU Skiers & Boarders
John Carroll Conservatives

John Carroll Television Organization JCU Tom's Club

John Carroll Humans vs. Zombies

John Carroll English Club

Kappa Alpha Theta Kappa Delta

Latin American Student Association

Le Cercle Français

Middle Eastern Student Association (MESA)

Order of Omega

Organization of Resident Assistants

Panhellenic Association

Pershing Rifles Phi Sigma Alpha Pre-Dental Society Pre-Law Society Pre-Pharmacy Club

Psi Chi

Public Relations Student Society of America Realizing Your Love for Cultures of the East

Residence Hall Association

Respect for Life Rhapsody Blue Rowing Rugby (Men's) Sailing Team

Science Fiction & Fantasy Club

Seed of Hope Sigma Phi Epsilon

Society for Human Resource Management

Society for Physics Students

Sports Medicine and Exercise Science Club

STAND Streaks in Key

Student Alumni Association Student Business Advisory Council

Student Union

Student Union Programming Board Students Empowering Women Students Today Leaders Forever

The Sweet Carrollines Ultimate Frisbee UNICEF Club Volleyball (Men's) Volleyball (Women's)

Take Back the Night

Student Union Programming Board (SUPB)

The Student Union Programming Board (SUPB) is responsible for planning campus-wide and off-campus activities for Thursday, Friday, and Saturday nights when classes are in session. Some of its traditional events include the annual Graffiti Party for first-year students, the Welcome Back Hypnotist, Oktoberfest, Cleveland Cavaliers games, Homecoming, Winter Formal, Spring Concert, Kindergarten night, Wing Night/Spa Night, and a regular comedian series. The board also sponsors regular coffeehouse programs in the Student Center Atrium. Other favorites include late-night events such as bingo, movies, and karaoke. More information can be found on the SUPB website at www.jcu.edu/supb.

Fraternity and Sorority Life

All of the sororities and fraternities at John Carroll University affiliated with national organizations during the 2001-02 academic year. First-year students can join one of these leadership and social organizations during formal recruitment each fall. The fraternities and sororities at John Carroll are committed to ethical leadership, positive membership development, social activities, academic excellence, community service, and the strong bonds of sisterhood and brotherhood. All of the national organizations have other chapters at neighboring colleges and universities and benefit greatly from strong alumni relations in the greater Cleveland area. The nine groups are listed below.

Fraternities

Beta Theta Pi (B $\Theta\Pi$) Delta Tau Delta ($\Delta T\Delta$) Lambda Chi Alpha ($\Delta \Xi A$) Sigma Phi Epsilon ($\Sigma \Phi E$)

Sororities

Chi Omega (XΩ) Gamma Phi Beta (ΓΦΒ) Kappa Alpha Theta (ΚΑΘ) Kappa Delta (ΚΔ) Kappa Kappa Gamma (ΚΚΓ)

Publications

Student publications include *The Carroll News*, the student newspaper, and *The Carroll Review*, the literary magazine.

Intercollegiate Debate

The John Carroll Debate Society provides students an opportunity to participate in intercollegiate debate competition. The debaters travel extensively to major tournaments throughout the United States and have an enviable record of success in national and regional competition. In addition to major national invitational tournaments and regional tournaments, the teams also participate in novice and junior varsity competition. Interested students, including those without previous experience, are invited to join and learn how to debate.

WJCU-FM

Students interested in electronic media have the opportunity to join the staff of noncommercial radio station WJCU, which broadcasts to greater Cleveland at 88.7 FM, as well as online at www.wjcu.org. The station offers an eclectic mixture of music, news, and information created by student and community programmers, as well as John Carroll sports broadcasts. Operated primarily by students, the station provides relevant training in broadcast and online media for all participants. Trainee sessions are held at the beginning of each semester and are open to all students regardless of major or program.

Theatre

The Little Theatre Society provides theatre experience for students interested in various phases of dramatic production. Open tryouts are held for performances given several times each academic year. The facilities include the Marinello Little Theatre and Kulas Auditorium. Participation in the Little Theatre Society may lead to membership in Alpha Psi Omega, a national theatre honorary society.

Lectures

Students may acquaint themselves with a wide spectrum of viewpoints and topics by attending lectures given on campus by distinguished scholars and public figures. During the 2012-2013 academic year alone, it was possible to hear, among many others, Rev. Patrick J. Conroy, S.J., Chaplain of the U.S. House of Representatives; Congressman Tim Ryan, author of *A Mindful Nation;* Eboo Patel, Executive Director of Interfaith Youth Core and author of *Acts of Faith;* Loung Ung, author and survivor of the Cambodian Killing Fields, and Marc Stefanski, Chair and CEO of Third Federal Savings and Loan. The Cultural Awareness Series included speakers such as poet Marilyn Hacker; filmmaker Mike Ramsdell, accompanied by a screening of his work "Anatomy of Hate – A Dialogue for Hope"; storyteller and musician Bill Miller; and performer Diana Yanez. In addition, Campus Ministry featured presenters on topics such as Vatican II, the Golden Rule, and interfaith gatherings.

Music: Choir, Band, Organ

The choir and band activities on campus provide a wealth of opportunities for musically-inclined students. The University sponsors the University Chorus, Carroll Singers, Schola Cantorum, Cecilia Singers, Chapel Ensemble, Wind Ensemble, Jazz Band, and Pep Band.

The Louise Mellen organ, one of the very few Spanish-style pipe organs in the United States, is located in Saint Francis Chapel. Built in Brussels by Patrick Collon, it provides a rare and quality instrument for organists of all abilities.

Athletics and Recreation

John Carroll University traditionally stresses the importance of athletics as an integral part of the total development of students. With updated sports facilities, a strong, organized varsity athletic and club sports program, and multiple recreational opportunities, all John Carroll students have the opportunity to participate in recreational and organized physical activities. The University also provides physical education classes and an active intramural/fitness program to meet the needs of its students at all levels of physical activity. John Carroll is committed to providing the means for students to develop mind, body, and spirit.

The University first participated in intercollegiate athletics in 1916 and was a member of the President's Athletic Conference from 1955 to 1989. In 1989, John Carroll rejoined the Ohio Athletic Conference (OAC), which it had left in 1949. Founded in 1902, the OAC is the third oldest conference in the United States.

John Carroll University sponsors intercollegiate competition in twenty-three sports. The men's intercollegiate programs are football, soccer, indoor and outdoor track, cross country, basketball, swimming and diving, wrestling, baseball, golf, tennis, and lacrosse. Intercollegiate competition for women includes volleyball, swimming and diving, basketball, tennis, cross country, golf, indoor and outdoor track, soccer, softball, and lacrosse.

The Department of Athletics and Recreation oversees nine club sport programs, which offer opportunities for students to compete against other colleges and universities. The organization, leadership, and success of each club sport are driven entirely by our exceptional students. Men's ice hockey, crew, men's volleyball, and men's rugby all have coaches, while ultimate Frisbee, women's basketball, sailing, field hockey, and women's volleyball (our newest club sport) are student-led.

The intramural program provides competitive opportunities for approximately 1,500 students. Offerings include flag football, racquetball, tennis, soccer, "Chicagostyle" softball, volleyball, basketball, ultimate Frisbee, corn hole, card tournaments, dodge ball, and floor hockey.

The Department of Recreation, Intramurals and Club Sports offers a wide variety of group fitness classes to students, faculty, and staff. There are opportunities to participate in kickboxing, toning, yoga, Pilates, cycling, Zumba, and dance classes.

The campus athletic facilities include the Johnson Natatorium, which has a swimming pool, diving well, and electronic timing system. The Tony DeCarlo Varsity Center was refurbished in 2002 and houses the varsity gym with a seating capacity of 1,300. The Center also contains a newly renovated Meuse wrestling facility, equipment room, and full training and rehabilitation room, as well as offices for the Department of Athletics. The Recreation Center provides additional facilities: two all-purpose courts for basketball, volleyball, and tennis; three racquetball courts; an indoor banked jogging track; a fitness studio for group fitness and dance practices; and locker facilities.

Dedicated on February 23, 1991, the Ralph Vince Fitness Center rounds out the indoor recreational opportunities for students, staff, and faculty. Cybex, Precor, LifeFitness and free weight equipment offer state-of-the-art fitness and weight-training settings. Steppers, bikes, treadmills, and ellipticals offer a variety of opportunities for cardiovascular improvement.

The outdoor facilities consist of the Don Shula Stadium, Wasmer Field, Bracken Softball Field, Zajac track, Hamlin Quad, Schweikert Baseball Field, and tennis courts. The outdoor complex contains soccer and football practice fields, which also serve as multipurpose outdoor recreation areas. The Don Shula Stadium, which opened in fall 2003, is home to the Blue Streak football, soccer, and track teams. The stadium has a seating capacity of 6,000, and Wasmer Field had a major replacement of its surface in 2011 with Sport Ex turf. The project also involved a total reconstruction of the track substructure and Beynon full-pour surface system. Adjoining the stadium are three tennis courts, which are used for intercollegiate, instructional, and recreational play.

More information about the Department of Athletics is available online at www.jcusports.com

Awards and Honors

The University encourages leadership, service, and civic engagement through the promotion of extracurricular activities in student organizations. Students may merit awards by participation in these activities. Significant among them are:

Beaudry Award

The award, in memory of alumnus Robert Beaudry, is given annually to the student who, in the opinion of members of the senior class, has excelled in leadership, commitment to Christian values, academic achievement, and service to the University and/or greater community throughout his or her years at John Carroll. Campus Ministry organizes the nomination process and facilitates a committee that determines a final slate of candidates. Members of the graduating class cast votes to determine the winner. More information can be found at www.jcu.edu/beaudry.

The Carroll News Person of the Year

The Carroll News Person of the Year is chosen by the student editorial staff of The Carroll News for being the most influential figure on campus. That person is honored with a major article in the final issue of the spring semester as part of the newspaper's review of the year.

Leadership Legacy Award

The Leadership Legacy Award is designed to recognize graduating seniors who, through their dedicated leadership and involvement, have made significant contributions to changing the campus culture in a positive way during their careers at John Carroll. These leaders have consistently and unselfishly given of themselves to enhance the spirit and community of John Carroll and improve the University.

Millor Orator Award

In honor of the late Reverend William J. Millor, S.J., who served the University in a variety of posts over twenty-eight years, the officers of the senior class senators, along with a panel of faculty and administrators, each year select a member of the graduating class to make a presentation at the commencement ceremony.

Student Union Organization of the Year

This annual award is given by the Student Union to the outstanding student organizations that have distinguished themselves in each of the following:

- Overall Organization of the Year
- Academic Organization of the Year
- Cultural Organization of the Year
- Greek Organization of the Year
- Programming/Social Organization of the Year
- Service/Issue-Based Organization of the Year

The recipients are selected by the Student Organization Review Board of the Student Union.

Academic Awards

The academic departments of the University offer a variety of awards and scholarships to students in recognition of their curricular achievements.

Accountancy

Ciuni & Panichi Award; Cleveland Public Accounting Firms Awards; Cohen & Co. Award; Crowe Horwath Award; Deloitte Alumni Awards; Ernst & Young Awards; Grant Thornton Awards; Howard, Wershbale and Company Award; Institute of Internal Auditors Award; Jarosz Family Foundation Award; KPMG LLP Awards; Lubrizol Corporation Awards; Maloney + Novotny Award; McGladrey Award; Meaden and Moore Award; PricewaterhouseCoopers Awards; Robert T. Sullens Awards; Skoda, Minotti and Company Award; Walsh Awards for Service to the department.

Art History and Humanities

Walter F. Friedländer Award for outstanding scholarship in art history; Geoghegan Award for outstanding scholarship in the humanities; Roger A. Welchans Award for outstanding achievement in the arts.

Biology

Fenton D. Moore Award for Outstanding Biology Graduate for outstanding academic performance as reflected in grades, research activity, service, and demonstrated enthusiasm for the discipline; Biology Leadership Award for outstanding

leadership through service to others; Outstanding Biology Scholar for outstanding research activity; Excellence in Biology Award for achieving a GPA of at least 3.85 in biology courses.

Boler School of Business

Frank J. Devlin Academic Scholarships, tuition grants to outstanding business students; Student Business Advisory Council Award to the outstanding Boler School of Business graduating senior; the Patricia Relyea Boland/Ernst & Young Scholarship for Women in Business, awarded to a senior female student in the Boler School of Business who has exhibited exceptional academic performance and leadership; the fiftieth Anniversary Scholarship, awarded to a senior student in the Boler School of Business who has exhibited exceptional academic performance and financial need.

Chemistry

Edmund B. Thomas Scholarship for the outstanding incoming freshman chemistry student; Lubrizol Award for distinctive achievement in chemistry; Undergraduate Award in Analytical Chemistry (American Chemical Society); Honor Awards for outstanding freshman and sophomore students; Rev. George J. Pickel, S.J., Senior Chemistry Award for outstanding scholarship, leadership, integrity, and commitment; American Institute of Chemists Award (senior) for scholastic achievement and leadership ability; Undergraduate Award in Biochemistry (senior); Clare Boothe Luce Scholarship for an outstanding female chemistry major.

Classical Languages

Joseph A. Kiefer, S.J., Award for outstanding achievement in Latin or Greek by a graduating senior; Charles A. Castellano, S.J., Scholarship for a freshman who has taken at least three years of Latin at the secondary level and who intends to major in Classical Languages; the Boheslav and Draga Povsik Scholarship for undergraduate research in Classics.

Communication and Theatre Arts

Awards: The Tim Russert Department of Communication and Theatre Arts Academic Excellence Award and Outstanding Senior Award; Dean's Cup and President's Cup award for proficiency in debate; Alpha Psi Omega Award for contributions to theatre, and the Russert Department Theatre Production Award; Lee Andrews Radio Broadcasting Award. Scholarships: Austin Freely Scholarship; Plain Dealer Scholarship for significant contributions to collegiate journalism; John J. Reardon Theatre Scholarship; Patti Rosenfeld Scholarship for an outstanding senior; James T. Breslin Scholarship for video/film production; General Electric Public Relations Scholarship; Bobbi Bokman-Rogers Public Relations Scholarship; Joan Louise Cunniff Scholarship in Interpersonal Communications; Kathryn Dolan Scholarship of Department Service; Lawrence Druckenbrod Scholarship in Media Ethics; Alan Stephenson Scholarship for Excellence in Media.

Tim Russert Fellowship: The NBC/John Carroll University "Meet the Press" Fellowship, created to honor Tim Russert, is awarded annually to a graduating senior from either The Tim Russert Department of Communication and Theatre Arts or the Department of Political Science at John Carroll University. The student will spend nine months at NBC's "Meet the Press" headquarters working on the production of a weekly program and conducting collaborative research under the direction of the executive producer. The candidate must have a strong interest in political journalism and demonstrated political journalism experience through internships, campus media, or other outlets. More information about the fellowship can be obtained by contacting the Office of the Provost and Academic Vice President at John Carroll University.

Economics

John Marshall Gersting Award to an outstanding graduating major in economics; Omicron Delta Epsilon Award to the outstanding junior economics major with at least eighteen hours of economics; Sonia S. Gold Award for service to the department; Economics Achievement Award, given to the student who has the highest score on the economics comprehension exam; Joseph and Nina Bombelles Award for meritorious achievement and involvement in international, environmental, or global economic affairs.

Education

Francis T. Huck Scholastic Achievement Award in Early, Middle Childhood, Adolescent and Young Adult, and Multi-Age Education; J. Joseph Whelan Leadership in Service Award; Fr. Joseph P. Owens, S.J., Scholarship Award (junior status); Rev. Joseph O. Schell, S.J., Ignatian Award for math and/or science (rising senior status); Golden Apple Awards for academic excellence in Early Childhood, Middle Childhood, Adolescent and Young Adult, and Multi-Age.

English

Richard Clancey Outstanding Senior English Major Award; David La Guardia Fiction Award; Joseph Cotter Poetry Award; Francis Smith Senior Essay Award. For rising seniors: Joseph T. Cotter Memorial Scholarship. For rising junior women (two years' support): Terri Ann Goodman Memorial Scholarship.

Finance

David M. Benacci Award for promising investment managers; Finance Faculty Student Service Award; Financial Executive Institute Award to recognize scholastic achievement of a senior finance or accounting major planning a career in financial management; *Wall Street Journal* Award to an outstanding senior in finance.

History

Scholastic Achievement Award to the outstanding graduating major; Fr. Howard T. Kerner, S.J., Scholarship Award; Research in Women's History Award.

Management, Marketing, and Logistics

Outstanding Management Student Award; Outstanding Marketing Student Award; Outstanding Business Logistics Student Award. For rising senior management majors: Plain Dealer Scholarship. For rising senior management and marketing majors: George A. Merritt Scholarship. For rising senior marketing majors: American's Body Company Hustle and Harmony Scholarship. For rising senior logistics majors: Joseph and Elizabeth Feeley Scholarship. For rising senior management, marketing, and logistics majors: Arthur J. Noetzel Scholarship.

Mathematics and Computer Science

Eugene R. Mittinger Award in Mathematics; Raymond W. Allen, S.J., Award in Teaching Mathematics; Brother Raymond F. Schnepp, S.M., Mathematics Scholarship; Academic Achievement Award in Computer Science; Award for Outstanding Undergraduate Research; Frank and Frances Guinta Scholarship for mathematics or computer science majors.

Military Science

The Department of the Army Superior Cadet Award for the outstanding cadet in each class; Association of the U.S. Army (AUSA) Award for excellence in Military History; Reserve Officers' Association Award for outstanding qualities of leadership; American Legion Awards for scholastic and military excellence; American Veterans (AMVETS) Award for demonstrated willingness to serve the nation; National Sojourners Award for demonstrated potential for outstanding leadership; Sons of the American Revolution Award for a first-year cadet with a high degree of merit; Military Order of World Wars (MOWW) Awards for cadets who excel in military and scholastic aptitude; Daughters of the American Revolution Award for demonstrated qualities of loyalty and patriotism; Daughters of the Founders and Patriots of America Award for high accomplishment in military history and leadership potential; Military Officers Association of America (MOAA) Award for a junior cadet with exceptional potential for military leadership; 82nd Airborne Association Award for an airborne-qualified cadet with demonstrated leadership potential and academic excellence; George C. Marshall ROTC Award for the most outstanding senior cadet.

Modern Languages

Scholastic Achievement Awards in the elementary, intermediate, and upperdivision categories: Lucien A. Aubé Award for outstanding achievement in French by a graduating senior; J. W. von Goethe Award for outstanding achievement in German by a graduating senior; René Fabien Scholarship for German students (may be open to French and Spanish majors as well) for financing study abroad; Robert Corrigan Award for outstanding achievement in Spanish by a graduating senior; Julie Zajac Memorial Scholarship for outstanding female senior in French. Outstanding students in French are inducted into the Kappa Eta Chapter of Pi Delta Phi, the national French honor society. Outstanding students in German are inducted into the Lambda Delta chapter of Delta Phi Alpha, the national German honor society. Outstanding students in Spanish are inducted into the Pi Lambda chapter of Sigma Delta Pi, the national Spanish honor society.

Philosophy

Paul Johnson, S.J., Award for distinctive achievement in philosophy by a graduating senior; William J. and Honoré M. Selhorst Award, based on grade-point average and recommendations, to the outstanding junior or juniors majoring in philosophy; the David Matthew Bonnot Award to a graduating senior who has excelled in philosophy and will pursue graduate study in philosophy; the Casey Bukala, S.J., award to a graduating senior who has excelled in philosophy.

Physics

Lawrence J. Monville, S.J., Award to outstanding graduating majors; Joseph L. Hunter Award for outstanding scholarship by a major; Xavier-Nichols Scholarship for outstanding scholarship by a female major; Lawrence J. Monville, S.J., Scholarship for exceptional physics students; Edward T. Hodous, S.J., Physics Scholarship for exceptional physics students.

Political Science

Kathleen L. Barber Scholastic Achievement Award: The Kathleen L. Barber Award is named for Professor Emerita and former Political Science Department Chair Kathleen L. Barber and is awarded annually to a senior political science major who has demonstrated outstanding academic achievement in the discipline of political science. John V. Czerapowicz International Relations Award: The Department of Political Science John V. Czerapowicz International Relations Award is given to a graduating senior who has achieved academic excellence in the study of international relations and has demonstrated commitment to the field through his/her activities. Exemplary Service Award: The Department of Political Science Exemplary Service Award is given to a graduating senior whose service and academic scholarship is a testament to the ideals embodied in the mission of John Carroll University.

Tim Russert Fellowship: The NBC/John Carroll University "Meet the Press" Fellowship, created to honor Tim Russert, is awarded annually to a graduating senior from either The Tim Russert Department of Communication and Theatre Arts or the Department of Political Science at John Carroll University. The student will spend nine months at NBC's "Meet the Press" headquarters working on the production of a weekly program and conducting collaborative research under the direction of the executive producer. The candidate must have a strong interest in political journalism and demonstrated political journalism experience through internships, campus media, or other outlets. More information about the fellowship can be obtained by contacting the Office of the Provost and Academic Vice President at John Carroll University.

Pre-Health Professions Program

Terence H. Ahearn, S.J., Award to the outstanding graduating pre-health professions student; Terence H. Ahearn, S.J., Merit awards to up to four pre-health professions students of distinction based on their service, participation in activities of the pre-health professions program, or other related commitments.

Psychology

Nicholas DiCaprio Distinguished Graduate in Psychology Award, for the major(s) who exhibit overall excellence, demonstrate significant achievement in research and/or practicum activities, and attain an overall and major GPA of at least 3.5 as well as a high score on the MFAT; Psychology Scholastic Achievement Award, for the student(s) attaining the highest major GPA, with strong consideration given to overall GPA; Research Recognition Award, for students involved in psychological research in substantial ways either in collaboration with faculty and/or independently; Service Recognition Award, for majors who render substantial service to the psychology department, the University, and/or the community at large; Applied Psychology Award, for substantial contributions to special practicum projects as part of practicum training in general or to the various psychology concentrations in the department.

Sociology and Criminology

Robert B. Carver Outstanding Senior Achievement Award; Outstanding Junior Award; John R. Carpenter Award for outstanding academic and intern experience in criminology; Sandra Friedland Gerontology Award for commitment and dedication in the field of gerontology; Ruth P. Miller Award for outstanding undergraduate achievement in human service, health, and social justice; Timothy J. Fenske Award for greatest undergraduate academic improvement. Outstanding students are also inducted into the Tau Chapter of the national sociology honorary society Alpha Kappa Delta and nominated for the American Sociological Association honors program.



Student Services

Campus Ministry

The Department of Campus Ministry encourages the students, faculty, staff, and administrators of John Carroll to integrate personal faith into the academic and social environment of the University. We value the University's commitment to academic pursuits and welcome the opportunities we have to bring a Catholic and Ignatian faith perspective to bear on issues and trends that may surface in various disciplines. We have identified the following as our purpose:

- We embrace the Jesuit, Catholic intellectual tradition as an indispensable partner in the search for truth and wisdom.
- We promote the service of faith and the promotion of justice through education, advocacy, service, and reflection.
- We foster the development of whole persons who are servant leaders in their local, global, and faith communities.
- We provide an open, caring, hospitable, and collaborative atmosphere that supports the mission of the University.
- We establish a sense of community through vibrant worship, retreats, and small faith communities, with Eucharist as the primary spiritual experience.
- We advocate for a community comprised of a diversity of faith and spiritual perspectives that seeks both wisdom and a fuller spiritual life.

Faith and justice are at the heart of the programs, liturgies, retreats, and service opportunities that Campus Ministry promotes. Students are encouraged to explore, deepen, and celebrate their faith. They are also called to action for the purpose of learning about and working for justice.

Campus Ministry organizes immersion experiences for the University community. These experiences offer students the opportunity to travel with faculty, staff, and administrators to rural, urban, domestic, and international destinations, where we serve others, experience their cultures, and build lasting friendships. Recent trips include Nicaragua, Jamaica, Ecuador, Dominican Republic, Guatemala, Honduras, Uganda, Appalachia, New Orleans, Louisville, and Immokalee, Florida.

Our retreat programs offer students the opportunity to pray, play, and reflect in an environment away from the busyness of campus culture. Many of the retreat programs are rooted in Ignatian spirituality, including the First-Year Retreat, Manresa Retreat, Leadership Retreat, and the Eight-Day Silent Retreat, which is based on the *Spiritual Exercises* of St. Ignatius.

While retreats offer a focused time for prayer and reflection off-campus, our Christian Life Communities (small faith-sharing groups) offer students an ongoing way to integrate faith into their college experience. Groups consist of six to ten people who meet weekly in the residence halls.

Campus Ministry also serves the community in celebrating faith through liturgies and prayer services, including the Mass of the Holy Spirit, Parent and Family Weekend Mass, Christmas Carroll Eve, and the Baccalaureate Mass. In addition to interfaith and other seasonal prayer services, eight Eucharistic liturgies are offered each week of the academic year. Hundreds of students provide liturgical leadership by serving as liturgy committee members, lectors, Eucharistic ministers, hospitality ministers, Mass coordinators (sacristans), cantors, choir members, and musicians.

Currently, part-time members of the Campus Ministry staff live in the residence halls, where they serve as Resident Campus Ministry Interns.

Campus Safety Services (CSS)

Campus Safety Services (CSS) functions as a police department under the Ohio Revised Code (ORC 1713.50) as established by the University's Board of Directors. This designation gives officers the same legal authority as municipal police officers.

As the University's law enforcement agency, Campus Safety Services works to provide for the safety, security, and well-being of John Carroll University and its community. It does so by maintaining police officer staffing 24 hours per day, 365 days per year. CSS officers patrol the campus, answer calls for service, provide personal escorts upon request, respond to alarms, and conduct investigations of suspicious, criminal, or otherwise inappropriate behavior. They also provide crime prevention/safety awareness programs in conjunction with other campus departments upon request. These programs help prevent crime through risk avoidance and personal responsibility.

The CSS office is located in Room 14 on the lower level of the D. J. Lombardo Student Center. The Dispatch Center, located in the Belvoir parking lot, is staffed around the clock every day of the year. CSS also can be reached by calling X 1234 from any campus phone or, from off campus, 216-397-1234 or 216-397-4600. Courtesy phones are located inside buildings throughout campus. CSS also has an online presence, which can be accessed at www.jcu.edu/campuslife/css.

Parking

CSS is also responsible for parking/shuttle bus management at John Carroll. Parking on campus is by permit only. First- and second-year resident students are permitted to have cars at John Carroll University but must park at an off-site parking location (Green Road Annex). Upper-class and most commuter students are permitted to park on campus. First-year commuter students must park in a lot across from the Campus main entrance. Transportation to and from the Green Road Annex parking lot is provided by shuttle bus. Upon request, shuttle busses will also transport students to and from the Regional Transit Authority Rapid station and to the shopping district on Cedar Road at Warrensville Center Road.

Students with permits for the Green Road Annex parking lot may park at the main campus from Friday at 5 p.m. until Monday at 7 a.m. on most weekends. (See Parking Rules and Regulations on the website for weekend restrictions.)

Center for Career Services

The Center for Career Services offers a broad range of services to all students regardless of class year or major as they address basic career development questions: Who am I and what am I passionate about? Where am I needed in the world? How do I get there? Clear decision-making is essential to creating and implementing a successful career plan. Students may schedule individual appointments to assess their values, interests, personality, and abilities as related to majors and careers; strategize a job/internship/graduate program search; and get feedback on related documents.

Additional services include Career Education courses, including academic internships; online resources, including Career Connection; and programming, such as the annual Career Fair and other networking and informational events.

Career Education Courses

The Center offers several one-credit academic courses, in addition to the academic internship (see below). Some are targeted to students at different points of career development. Exploring Your Options (CE 111) focuses on choosing a major/career, conducting self-assessment, and exploring academic options. Introduction to Careers (CE 101) provides information about occupational paths, preparation of resumes, and strategies for conducting a job/internship search. CE 121 and 122 offer insights into the options available to students in specific majors (Accountancy and Psychology). Introduction to the World of Work (CE 131) prepares juniors and seniors for the transition from college to career after graduation, exploring the philosophy of work and job search strategies, negotiating job offers, and more.

The Academic Internship Courses

The Academic Internship Program offers students the opportunity to integrate classroom learning with "real world" experience through internships related to their academic and career goals. Professional work experience helps students to clarify their career goals, gain resume-building experience, increase their sophistication about the world of work and their network of contacts, and develop core competencies required for their preferred career field.

Internships may be paid or unpaid and are eligible for credit or non-credit transcript notation. Work assignments relate to students' career interests and majors and allow them to advance in terms of level of responsibility and required competencies as they mature and progress through the curriculum. In order to receive credit, students must register for these classes in person at the Career Center and should consult the website for requirements and appropriate paperwork.

Career Connection

Career Connection is John Carroll University's complete online career resource for job postings, event listings, and on-campus interview registration. Highlights include the following:

- All jobs—including part-time, full-time and internship opportunities—are entered by the employers themselves, looking specifically for our students and alumni.
- Students of all majors may participate in the on-campus recruiting program (see our website for specific requirements). Interviews take place in the Career Center during fall and spring semesters and are available for both fulltime entry-level positions and internships.
- All events sponsored by the Career Center, as well as local and other national career development and networking events, are posted in Career Connection.

John Carroll University Carroll Contacts

This network of alumni, parents, recruiters, faculty, staff, and friends of the University is available as a group on www.linkedin.com. Students are encouraged to create a professional profile using the resources of the Center for Career Services, to participate and initiate discussions, and to begin to build their own professional network of contacts.

Career Center Website

For more detailed information on services and links to other online resources, please visit the Career Center's website at www.jcu.edu/careercenter. Also available on the website is the annual First Destination Survey, which reports on the employment, graduate studies, and service commitment of the most recent graduating classes.

The Center for Digital Media

The Center for Digital Media (CDM) is jointly managed by Grasselli Library and Information Technology Services. The goal of the CDM is to provide faculty and students with the resources to create sophisticated presentations, videos, graphics, and other forms of multimedia that can enhance teaching, learning, research, and creativity at John Carroll. The center, located on the main floor of Grasselli Library, provides the University community with three primary resources: (1) a fully-equipped and supported multimedia lab open to faculty, staff, and students; (2) a production lab with associated services for faculty; and (3) an ongoing technology training and professional development program. The CDM also has a collection of cameras and other equipment that students and faculty can borrow on a short-term basis.

Center for Student Diversity and Inclusion

Guided by John Carroll University's mission, vision, and core values, the Center for Student Diversity and Inclusion focuses on supporting historically underrepresented students to become successful and fully engaged in their educational experiences at John Carroll University. The Center nurtures a sense of belonging for students from diverse backgrounds and encourages them to participate actively in their curricular and co-curricular learning, including campus and community organizations, leadership opportunities, and intercultural experiences. In collaboration with other University departments, the Center coordinates programs and services that foster an inclusive campus environment, promotes a welcoming and just University community, and encourages and values the contributions and perspectives of all students.

The goals of the Center for Student Diversity and Inclusion are as follows:

- To develop, implement, and evaluate programs and services that support historically underrepresented students in their personal development and transition throughout their John Carroll University experience.
- To provide leadership opportunities for underrepresented students that focus on engagement in campus and community organizations.
- To provide campus-wide programs that further all students' development of cultural competence and respect for diversity and social justice.
- To identify, examine, and recommend organizational changes that remove barriers to inclusion and promote student success.

Grasselli Library and Breen Learning Center

Originally dedicated in 1961, Grasselli Library doubled its physical capacity in 1995 with the opening of the Breen Learning Center wing. The library offers private and group study spaces, with both quiet and more collaborative study space, a coffee bar and lounge, and an open-air reading garden. A 44-seat computer commons is adjacent to the reference area, as is the Center for Digital Media (CDM). Reference assistance is available in person, by phone, and electronically. The library has a laptop-lending program for student use on the premises. Kindles and CDM equipment, including flip cams and video, are also available for loan.

The ground floor of the library houses the Learning Commons, a center for enrichment that includes peer tutors for a variety of courses and a Writing Center annex, adjacent to the coffee bar. Additionally, the professional librarians at Grasselli are available for student consultations and work closely with faculty to help students utilize and evaluate information resources efficiently and effectively.

While the library has more than 775,000 books, periodicals, and media materials in its physical space, it also has substantial subscriptions to electronic journals, books and streaming media, as well as access to the collections of 87 other colleges and universities through participation in the OhioLINK consortium. Resources not available at Grasselli or through OhioLINK can be borrowed through interlibrary loan.

The library provides off-campus access for authorized users to most of its electronic products. More information on the collections and services of Grasselli Library and Breen Learning Center is available from the home page of the library at http://library.jcu.edu.

Information Technology Services

The Information Technology Services (ITS) department provides a wide variety of information technologies across the campus, including multimedia classrooms in support of teaching and learning; administrative electronic information systems; high-performance networks (including ubiquitous wireless) for computer, voice, and video communication; a widely distributed array of application/file servers; and support for desktop/laptop computers. The department maintains electronic classrooms and computers labs equipped with desktop computers and a variety of multimedia presentation facilities; it also provides technology help-line and personal assistance to students, faculty, and staff. In addition, the Center for Digital Media (CDM) see page 52, has advanced computer systems and staff support to assist faculty in employing the most up-to-date learning technologies in their curricula and students with the incorporation and use of technology in their course work and projects.

Throughout the campus, there are more than 80 classrooms and labs equipped for advanced electronic multimedia presentation. More than 60 of these include an instructor lectern with an integrated touch-screen control station, multimedia computer, DVD, VCR, document camera, and electronic whiteboard with projection and file-capture capabilities. A number of classrooms have computers for every student. These classrooms and labs have full Internet access, including World Wide Web, e-mail, and other software packages selected by professors as supplements to classroom instruction. All sites are connected via local networks to the campus-wide fiber optic Gigabit Ethernet network. Furthermore, the campus network and the Internet are accessible from anywhere on the campus—including all outside spaces—through a comprehensive wireless network. The Banner administrative information system provides students and faculty with many web-accessible records and services.

There is a data port to the campus network for each student in every room of the residence halls, in addition to the wireless network. Students who have their own computer have access to a complete array of campus computing and information facilities from their rooms, including services from Grasselli Library and the commercial Internet.

Office of the Registrar

The Office of the Registrar is responsible for the maintenance and preservation of all University academic records.

Registration: Students register for courses by using an online electronic system. Changes in registration (e.g., adding/dropping a course, withdrawing from a course) are also processed by the office. For further information about registration, see page 106 of this *Bulletin*.

Transcripts: Students who wish transcripts of records in order to transfer to another school or for other purposes should apply online or by signed letter to the Office of the Registrar at least two weeks in advance of need. To protect studen ts and alumni, no telephone requests for transcripts will be honored. Transcripts are issued only at the request of the student, and official transcripts are sent directly to the college or university to which transfer is desired. A fee of \$5 is required for each transcript. Transcripts are released only when all outstanding balances have been paid.

Access to grades: Each student may have access, on a read-only basis, to his/her own academic record. To use this service the student must acquire a Banner ID and PIN, available from the Office of the Registrar, and then view the record on the web from the Banner website.

The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

- 1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.
 - Students should submit to the registrar, dean, chair of the academic department, or other appropriate official written requests that identify the record(s) the student wishes to inspect. The University 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 University official to whom the request was submitted, that person will 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 the student believes are inaccurate or misleading or otherwise in violation of the student's privacy rights under FERPA.
 - A student who wishes to amend such a record should write to the University official responsible for the record, clearly identify the part of the record s/he wants changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested, the University will notify the student of the decision in writing and advise the student of his or her right to a hearing regarding the request for amendment.

Student requests for formal hearings must be made in writing to the academic vice president, who, within a reasonable time of receiving such request, will inform students of the date, place, and time of the hearing. The academic vice president, the vice president for Student Affairs, the associate dean for Graduate Programs, and the academic dean of the student's college or school will constitute the hearing panels for challenges to the content of education records. Upon denial and subsequent appeal, if the University still decides not to amend the record, the student has the right to place a statement with the record setting forth his or her view about the contested information.

3. The right to consent to disclosures of personally identifiable information contained in the student's education 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 the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors; 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 education record in order to fulfill his or her professional responsibilities for the University. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The University may also disclose student information without consent during audits/evaluations, in connection with financial aid, during certain studies, to accrediting organizations, to comply with a judicial order, and during health and safety emergencies. The University may disclose student information to a student's parent during health and safety emergencies, or when that student is a financial dependent of the parent, or when the student is under age 21 and has violated Federal, State, or local law, or any rule or policy of the University governing the use or possession of alcohol or a controlled substance.

4. The right to withhold directory information. The University has designated the following as directory information: student name, address (including e-mail address), telephone number, date and place of birth, photograph, major fields of study, class year and enrollment status, dates of attendance, degrees and awards received, the most recent previous educational institution attended, participation in officially recognized activities and sports, and weights and heights of members of athletic teams.

Students may refuse to allow the University to designate the above information about them as directory information by notifying the registrar in writing within two weeks after the first day of class for the fall semester. Students must submit an annual written notification of refusal to allow the designation of directory information.

- 5. The right to annual notification. The University must notify students annually of their rights under FERPA. The actual means of notification is left to the discretion of the University.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by John Carroll University to comply with the requirements of FERPA.

Students may file complaints with The Family Compliance Office, U.S. Department of Education, 400 Maryland Ave., S.W., Washington, D.C. 20202-5901.

Services for Students with Disabilities

John Carroll University is committed to ensuring equal access and reasonable accommodations for students with disabilities. The Office of Services for Students with Disabilities (SSD) provides assistance to students with documented disabilities and serves as the primary resource for all student issues related to disabilities. SSD collaborates with students and University personnel to provide reasonable accommodations, auxiliary aids, and support services.

Students must provide documentation of their disability to SSD and have an intake meeting with the director before they can receive services. It is recommended that enrolled students register with the SSD office as early as possible since accommodations are not retroactive. Please contact the director at (216) 397-4967 with any questions or requests for more information.

The University's "Policy on Disability-Related Grievances" appears on pages 411-412.

Student Health Center

The Student Health Center is an outpatient facility for students. Located on the lower level of Murphy Hall, it provides health care during posted hours five days a week while the University is in session. The Health Center is staffed by local physicians, registered nurses, and health-care professionals. John Carroll also has a student-led EMS (emergency medical service) squad that is on duty whenever the center is closed.

Students are charged for x-ray and laboratory tests and for the service of the attending physician. They receive over-the-counter medications free of charge.

University Hospitals and Hillcrest Hospital provide overnight hospitalization and after-hours emergency care. Numerous physicians from the Cleveland Clinic and University Hospitals are available for referrals.

During the renovation of Murphy Hall in 2013-2014, the Student Health Center is temporarily housed in a mobile services unit on campus.

University Counseling Center

The University Counseling Center provides free, personal, and **confidential** counseling to students of the University community. An initial session with an intake counselor allows a student to share concerns about relationships, family difficulties, stress, loneliness, eating problems, sadness, test or performance anxiety, academic problems, and other matters. During this session, the intake counselor will help students assess their needs, gather information, stress the confidential nature of the counseling relationship, and assign them to a counselor. Counselors are available to meet on an individual basis or in groups with students seeking help. Students may contact the University Counseling Center directly for an appointment at (216) 397-4283.

Liberal Education at John Carroll University

A liberal education consists of two parts: studies in a core curriculum and study in a major field. All undergraduate, degree-seeking students initially enroll in the College of Arts and Sciences, where they fulfill division requirements of the University Core Curriculum. The liberal arts deal with the creative, social, and scientific developments of past and present cultures and their ideals and human values. These studies impart an appreciation for complexity and the ability to think critically, to solve and resolve problems, and to write and speak with precision and clarity.

The curriculum described below applies to all students who enter before Fall 2015. Students who enter in Fall 2015 or thereafter will be subject to a new Core Curriculum whose requirements will appear in the 2015-2017 *Undergraduate Bulletin*.

The John Carroll Core Curriculum in the Liberal Arts is informed by the principles that issue from the University's mission as a Catholic and Jesuit institution of higher learning. Accordingly, the Core emphasizes the development of whole human persons who are educated in the humanizing arts and sciences; skilled in expression and in scholarly investigation; and aware of the interrelationship of all knowledge and the interdependence of all peoples. Moreover, it promotes the integration of faith and culture by imparting a deeper knowledge of, and respect for, the students' own cultural and religious traditions as well as those of others. Finally, it highlights intellectual, moral and spiritual principles, and the responsible social actions that flow from them.

The second part of their liberal education has students concentrating study in a major field. The liberal arts Core and major programs are integrated into a coherent educational experience to prepare students for positions of leadership and service in professional, business, and service careers.

The University Core Curriculum in the Liberal Arts

As a means to achieve the goals stated above and other goals significant to the University's mission, the Core has a distributive structure as well as distinctive emphases. The Core thus allows selectivity while also stipulating certain academic experiences that are important for all students.

In the Core, all students must take:

- A first-year seminar, which is an academic experience in common with other students that provides an interdisciplinary introduction to academic inquiry.
- Two courses in first-year composition that develop written expression.
- A writing-intensive course that extends the significance of excellent expression beyond first-year composition.
- A course in speech communication that develops oral expression.

Liberal Education at John Carroll University

- A year of foreign language that provides the basic tools for understanding another culture and its literature.
- A literature course that develops the abilities to read critically, write clearly, and appreciate the working of the human imagination.
- A history or art history course that deepens the awareness and appreciation of other civilizations or the historical roots of a student's own society.
- A mathematics course that develops logical thinking, problem-solving skills, and an alternative way of viewing the world.
- A laboratory science course that acquaints a student with the scientific method and with a variety of laboratory techniques.
- A course that focuses on issues of diversity, which might include gender and race.
- Two international courses that expand a student's horizons.
- Three courses in philosophy: one that introduces the central problems and methods of philosophy, one that explores a period or area in the history of philosophy, and one examining applied or specific problems in philosophy.
- Two courses in religious studies: one that examines the nature of religion and religious language, faith as it relates to reason and experience, the study of sacred scriptures, and the development of religious traditions; and one additional course.

The distributive requirements are designed to combine with the specific requirements to provide an equilibrium among disciplines as well as to create a coherence that will enable students to integrate their Core experience successfully. Please refer to the schematic presentation of the Core on page 60.



UNIVERSITY CORE

DIVISION IBASIC CORE

DIVISION II HUMANITIES

17-18 credits*

9 credits**

First Year Seminar (3 cr.) English Composition (6-8 cr.) Speech Communication (2 cr.) Foreign Language (6 cr.) Art History Classical & Mod. Lang. & Cultures Communication and Theatre Arts English

History

DIVISION IIISOCIAL SCIENCES

SCIENCE AND MATHEMATICS

DIVISION IV

10 credits****

6 credits***

Biology

Economics Political Science

Chemistry
Computer Science

Sociology and Criminology

Mathematics Physics Psychology

DIVISION V

PHILOSOPHY AND RELIGIOUS STUDIES

15 credits

Philosophy (9 cr.)

Theology and Religious Studies (6 cr.)

Additional Requirements:

- One writing-intensive course beyond English Composition.
- Two international courses (one of which must study one or more societies of Asia, Africa, or Latin America).
- One course which focuses on issues of diversity.

*English placement is determined on the basis of individual needs as indicated by test scores submitted at the time of admission. The *Speech Communication* requirement is normally satisfied by completion of CO 100. A competence examination is available through the Department of Communication and Theatre Arts for those who have completed at least one year of high school speech. The *Foreign Language* requirement is satisfied by two courses in the same language at the level of placement.

**Three courses: one literature course, one course in either History (HS) or Art History (AH), and one additional course.

***Two courses from two disciplines.

****Three courses involving a minimum of 10 credits: one in Mathematics (MT); one, with laboratory, in Biology (BL), Chemistry (CH), or Physics (PH); and one additional course.

DISTRIBUTIVE CORE

Not all courses in departments named below are "Core" courses. The University Core Committee determines which courses satisfy the criteria for Core courses. The course schedule for each semester designates which courses fulfill Core requirements. (Check computer listings for updates.) See pages 65-67 for a list of approved Core courses as of March 22, 2013. This list is subject to change, and a current list is maintained in the office of the director of the Core Curriculum.

Division I: Basic Core

The ability to formulate ideas clearly and to present them effectively in written and oral form is characteristic of the Jesuit educational tradition, *eloquentia perfecta*. The study of a foreign language provides the basic tools for understanding another culture and its literature. Through courses offered by the Department of Classical and Modern Languages and Cultures, the Department of Communication and Theatre Arts, and the Department of English, students are expected to become competent in speaking and writing and to demonstrate that competence throughout their course work. In addition to the skills described above, a first-year seminar provides an interdisciplinary introduction to academic investigation.

The **First-Year Seminar (FY SEM)** is a theme-based examination of the perennial questions of human experience, and is taught by faculty from all areas of the University. A graded course characterized by disciplined investigation of topics and consistently rigorous academic standards, the seminar features:

- An environment that promotes the early development of academic skills in first-year students and fosters a serious attitude toward academic activities and responsibilities.
- A pedagogy that emphasizes active learning and develops students' skills in critical inquiry and problem-solving.
- A context that promotes collaborative and integrated learning.
- An atmosphere in which faculty facilitate discussion while sharing a learning experience in which they are not necessarily "expert."
- A milieu in which students learn to question and clarify their values.
- An emphasis on the development of written and oral skills.

Transfer students with 25 or more accepted credits may waive the First-Year Seminar. Because FYS is designed as a common first-year college experience, it is expected that all entering first-year students will take FYS. First-year students who enter with 25 or more credit hours may petition to have this requirement waived. In order for the petition to be successful, the student must demonstrate that the credits earned were part of a college experience.

Competence in Oral Communication

The ability to speak effectively and clearly before audiences is an essential goal of the Core. Students must demonstrate competence in speaking before an audience as a requirement for graduation. In addition to this minimal requirement, students should seek frequent opportunities throughout their college career to improve speaking skills through presentations and reports before other audiences.

The requirement in speech communication is normally satisfied by successful completion of CO 100. This requirement may also be satisfied through an examination administered by the Department of Communication and Theatre Arts for those students who have completed at least one year of high school speech.

Competence in Written Communication

Fluency in written expression is essential to a liberal education. The University expects students at all times to maintain acceptable standards of written English. Failure to maintain these standards in any class work may result in the lowering of the final course grade. Prior to such grade reduction, the instructor will return at least one assignment to the student with a written warning that the student's writing is not of acceptable quality.

All students must demonstrate a satisfactory level of writing competence before graduation and are urged to take courses each year that will progressively sharpen writing skills through papers and other exercises. Those with writing deficiencies should seek tutorial and other developmental help.

- The University provides writing instruction in the following ways:
- Two courses in composition in the first year introduce students to collegelevel reading and writing and stress processes of composing and revising analytical and argumentative prose.

A writing-intensive course at a more advanced level in the student's major or elsewhere in the curriculum extends the practices of good writing into the context of disciplinary inquiry.

Additionally, professors maintain high standards for writing in all courses, and they offer appropriate support and instruction. All students are encouraged to use the Writing Center throughout their time at John Carroll for individual instruction and guidance in good writing.

The level of placement for English composition (usually EN 103, 111, or 114) is determined on the basis of individual needs as indicated by test scores submitted at the time of admission, and by high school GPA. See page 212 (English) for further details.

Competence in Foreign Language

The foreign language requirement is satisfied by two courses in the same language. Students may begin a new language or continue a language at their level of competence, as determined by placement examinations administered prior to the orientation for

first-year and transfer students. International students (see page 18) whose native language is not English are exempt from the foreign language requirement.

Nontraditional students (defined as part-time students, evening students, and students who began or returned to college after an absence of five years from formal education) may satisfy the foreign language requirement by an alternative method approved by the chair of the Department of Classical and Modern Languages and Cultures, the director of the Core Curriculum, and the dean of the College of Arts and Sciences. Students with documented language learning disabilities may avail themselves of this alternative method on the recommendation of the director of Services for Students with Disabilities to the Core director.

Requirement: First-Year Seminar (3 cr.); English composition (6-8 cr.); speech communication (2 cr.); foreign language (6 cr.).

Division II: The Humanities

The humanities study intellectual and cultural foundations and values, primarily of the Western tradition, through literature, languages, the rhetorical arts, and the history of ideas, as well as the theoretical, historical, and aesthetic studies of the visual and fine arts. These studies develop an awareness of the relationship of the present to the past, sensitivity to aesthetic expression, and the ability to make critical discernments and to express them cogently.

The literature requirement is satisfied by a course from either the Department of English or the Department of Classical and Modern Languages and Cultures. The chosen course will be one in which literature is studied as an aspect of culture, a historical period, or a genre.

Appropriate disciplines: Art History (AH); Classics (CL); Chinese (CN); French (FR); Greek (GK); German (GR); International Cultures (IC); Italian (IT); Japanese (JP); Latin (LT); Modern Languages (ML); Russian (RS); Slovak (SL); Spanish (SP); Communication and Theatre Arts (CO); English (EN); and History (HS). Basic speech, first-year English composition, and language skill courses are excluded here, since they are required in their own division of the Core.

Requirement: 9 cr. – three courses: one literature course; one course in History (HS) or Art History (AH); one additional course.

Division III: The Social Sciences

The social sciences study the human condition, that is, the nature of human behavior, human interaction in group life, and the effect of social, political, and economic forces on humanity over time. Their methodology incorporates descriptive and analytical techniques. These disciplines enhance the understanding of the humanities and natural sciences by showing their operation in everyday life, and thus are necessary for a liberal education.

Liberal Education at John Carroll University

Appropriate disciplines: Economics (EC); Political Science (PO); and Sociology and Criminology (SC).

Requirement: 6 cr: two courses from two disciplines.

Division IV: The Sciences and Mathematics

The physical and life sciences provide introductions to both the quantitative and qualitative study of life, matter, and the physical universe, and are basic to a liberal education. The study of science, requiring basic steps of observation, organization of data, and the construction and testing of hypotheses, is best understood in applications through laboratory and field experimentations. Mathematics, in itself an essential component of the liberal arts, also provides the relational and computational tools necessary for scientific inquiry.

Appropriate disciplines: Biology (BL); Chemistry (CH); Computer Science (CS); Mathematics (MT); Physics (PH); and Psychology (PS).

Requirement: 10 cr. minimum – three courses: one Mathematics (MT) course; one laboratory science course in Biology (BL), Chemistry (CH), or Physics (PH), or a laboratory science course that integrates these three disciplines; one additional course.

Division V: Philosophy and Religious Studies

Philosophy examines the formative concepts underlying world culture and teaches the ability to interpret and integrate these concepts as well as the skills for the development of arguments and conceptual and logical analyses—both formal and dialectic—necessary for the integration of the intellectual, ethical, and practical aspects of life.

Religious studies, which includes theology, recognizes the phenomenon of religion as a universal and fundamental part of human culture and encourages the examination of the world's faith communities through the analysis of religious writings, teachings, and practices. In keeping with the University's Jesuit heritage, special emphasis is given to the Roman Catholic tradition.

In both the Department of Philosophy and the Department of Theology and Religious Studies, the introductory course acquaints students with those disciplines in a manner that ensures a common basis of knowledge for courses that will follow the introductions to the disciplines.

Requirement: 15 cr: PL 101, and two additional PL courses (one course in the history of philosophy at the 200 level, one course on specific philosophical problems of applied topics at the 300 level); TRS 101, and one other TRS course at the 200 or 300 level.

THE CORE CURRICULUM IN THE LIBERAL ARTS Approved Division Core Courses

Division I				
AB 101	FY SEM	GR 101	JP 101	RS 101
AB 102		GR 102	JP 102	RS 102
	FR 101	GR 201	JP 201	
CN 101	FR 102	GR 202	JP 202	SL 101
CN 102	FR 201	GR 301	JP 301	SL 102
CN 201	FR 202	GR 302	JP 302	
CN 202	FR 301			SP 101
	FR 302	IT 101	LT 101	SP 102
CO 100	FR 305	IT 102	LT 102	SP 201
CO 101H		IT 201	LT 201	SP 202
	GK 101	IT 202	LT 202	SP 301
EN 103	GK 102	IT 301		SP 302
EN 111		IT 302		SP 305
EN 112				SP 321
EN 114				
EN 116				
Division II				
AH 101	CO 316	EN 222/L	FR 303/L	IC 160/L
AH 211	CO 317	EN 277/L	FR 306	IC 162/L
AH 301	CO 318	EN 278/L	FR 307	IC 163/L
AH 303	CO 341	EN 281/L	FR 311	IC 164/L
AH 304	CO 343	EN 282/L	FR 314	IC 220
AH 307	CO 346	EN 284/L	FR 315/L	IC 230/L
AH 308	CO 380	EN 285/L	FR 319	IC 231/L
AH 309	CO 390	EN 286/L	FR 320/L	IC 260/L
AH 310		EN 287/L	FR 325/L	IC 261/L
AH 311	CL 220/L	EN 288/L	FR 326/L	IC 262/L
AH 313	CL 222/L	EN 291		IC 263/L
AH 314	CL 230	EN 311/L	GK 232/L	IC 302L
AH 315	CL 240/L	EN 312/L		IC 343
AH 316	CL 250/L	EN 320/L	GR 306	IC 350
AH 317	CL 260/L	EN 321/L	GR 310	IC 360/L
AH 318	CL 290/L	EN 330/L	GR 313/L	IC 361
AH 319	CL 301	EN 331/L	GR 375/L	IC 362/L
AH 320	CL 302	EN 340/L		IC 363
	CL 304	EN 351/L	LT 232/L	IC 370L
CO 200		EN 360/L	LT 340/L	
CO 220	EN 201/L	EN 361/L	LT 410/L	
CO 245	EN 202/L	EN 371/L	LT 450/L	
CO 265	EN 203/L	EN 372/L	LT 490/L	
CO 280	EN 204/L	EN 382/L	LT 491/L	
CO 285	EN 214/L			

Liberal Education at John Carroll University

Division II (Continued)			
HS 110	HS 152	HS 212	HS 326	SP 310
HS 113	HS 153	HS 273	HS 333	SP 311
HS 114	HS 154	HS 274	HS 336	SP 314
HS 116	HS 155	HS 279	HS 341	SP 315/L
HS 118	HS 168	HS 280	HS 342	SP 325/L
HS 120	HS 170	HS 283	HS 343	SP 326/L
HS 121	HS 180	HS 300	HS 357	SP 327/L
HS 131	HS 201 HS 202	HS 301 HS 302	HS 372 HS 381	SP 328/L SP 330
HS 150 HS 151	HS 208	HS 310	HS 382	SP 330
113 131	HS 211	HS 321	113 302	
Division III				
EC 101	PO 302	PO 300	PO 330	PO 344
EC 201	PO 305	PO 301	PO 331	PO 355
EC 202	PO 309	PO 314	PO 332	PO 356
	PO 310	PO 315	PO 333	PO 359
PO 101	PO 311	PO 316	PO 334	PO 361
PO 102	PO 312	PO 317	PO 335	PO 363
PO 103	PO 240	PO 318	PO 341	CC 101
PO 104 PO 204	PO 241 PO 242	PO 319 PO 320	PO 342 PO 343	SC 101 SC 245
PO 204 PO 207	PO 242 PO 243	FO 320	FO 343	SC 243
PO 213	PO 254			
PO 220	10231			
Division IV				
BL 101	CH 103-103L	MT 118	MT 162	PH 125-125L
BL 102-102L	CH 105-105L	MT 122	MT 167	PH 126-126L
BL 103-103L	CH 141-143	MT 130	MT 200	PH 135-135L
BL 109-109L	CH 142-144	MT 133-134	MT 223	PH 136-136L
BL 111-111L	CH 151-153	MT 135		PH 246
BL 112-112L	GG 101	MT 136	PH 101-101L	DC 101
BL 115-115L BL 155-157	CS 101 CS 102	MT 160	PH 102-102L PH 107-107L	PS 101
BL 155-157 BL 156-158	CS 102 CS 128		PH 107-107L PH 113-113L	
DL 130-136	C5 126		PH 115-115L	
Division V				
PL 101	PL 260	PL 302	PL 314	PL 375
PL 210	PL 265	PL 303	PL 316	PL 379
PL 215	PL 270	PL 304	PL 320	PL 380
PL 220	PL 275	PL 305	PL 330	PL 385
PL 230	PL 280	PL 306	PL 340	PL 388
PL 240	PL 285	PL 307	PL 350	PL 390
PL 245	PL 286	PL 310	PL 360	PL 395
PL 250 PL 255	PL 289 PL 290	PL 311 PL 312	PL 368 PL 370	PL 396
1 L 233	PL 301	1 11 314	11.370	

Division \	(Continued)			
TRS 101	TRS 240	TRS 272	TRS 328	TRS 361
TRS 200	TRS 250	TRS 300	TRS 330	TRS 362
TRS 205	TRS 252	TRS 301	TRS 331	TRS 364
TRS 210	TRS 253	TRS 306	TRS 332	TRS 368
TRS 220	TRS 254	TRS 315	TRS 333	TRS 370
TRS 223	TRS 255	TRS 320	TRS 334	TRS 371
TRS 222	TRS 260	TRS 321	TRS 335	TRS 373
TRS 230	TRS 261	TRS 322	TRS 336	TRS 374
TRS 231	TRS 264	TRS 323	TRS 338	TRS 376
TRS 232	TRS 267	TRS 324	TRS 341	TRS 378
TRS 238	TRS 271	TRS 325	TRS 351	TRS 379
		TRS 326	TRS 356	

ADDITIONAL CORE REQUIREMENTS

The following content and methodology requirements may be satisfied through the distributive Core requirements listed above or through other approved courses. The University Core Committee determines which courses satisfy these requirements.

• Writing-Intensive Course

Requirement: One course (designated "W") beyond English Composition.

Since courses throughout the curriculum will be designated as "W," students may graduate with several such courses. The primary goal of this requirement is to enable students to carry into their upper-division courses the discipline and habits of good writing nurtured in composition courses. A second, yet equally important goal is to intensify the expectation of professors throughout the University for excellent standards of expression in all written assignments.

• International Courses

Requirement: Two international courses designated "R" or "S" from throughout the curriculum, at least one of which is designated as "R."

The University Core seeks to increase students' awareness and knowledge of the world beyond the borders of the United States. International courses introduce and analyze the values, beliefs, or practices that characterize other nations or societies. International courses seek to familiarize students with other societies, to decrease stereotyping, and to improve students' ability to function as global citizens in the 21st century. At least one of the international courses must focus on the study of one or more nations or societies historically *distinct* from Western civilization, such as those of Africa, Asia, and Latin America. These courses will be designated with the suffix "R" (Required international courses). For their second international selection, students may choose either a second "R" course or one of the courses designated as "S." The "S" designation refers to courses that study one or more nations or societies historically *within* Western civilization.

Liberal Education at John Carroll University

Diversity Course

Requirement: One course (designated as "D") from throughout the curriculum.

The University Core seeks to increase students' awareness of alternative world views and life ways that form the basis of social life for an identifiable population. The Core thus requires that students take at least one course reflecting diversity within a society so as to increase tolerance and discourage stereotyping. Such courses include, but are not limited to, those dealing to a large extent with minority or marginalized populations. Such courses will seek to encourage academic understanding of these alternative views and ways of life through a variety of approaches. These include description, analysis of the issue and processes of marginalization, analysis of status in the larger society, and/or comparison with other populations. They will seek to examine not only differences among these populations and others, but also diversity within these populations.

While some courses may be designated as "D" and "R" or "D" and "S," students may use such courses to fulfill only ONE of these designations and not both.

Waiver of Core Requirements

Recognizing that personal achievement is the ultimate goal, the University is aware that some individuals may achieve desired competence in specific areas without formal course work (e.g., through private study, or by means of particular moral or religious formation). Where such proficiency can be established, the dean of the College of Arts and Sciences is empowered to waive a specific Core requirement. Such a waiver does not include or imply the granting of credit hours.

Education in Depth

The Major

Degree candidates must choose a department of instruction in which they will undertake a program of concentrated study. This choice should be made before the end of the sophomore year or once the student has earned 45 credits. Transfer students are eligible to declare a major once they complete a semester at John Carroll and/or have earned 45 credits, including transfer credits. Students majoring in one of the natural sciences, business, or education, however, usually select their major in the freshman year. Some other departments also encourage early determination. Later choice may result in prolonged completion of the degree program.

At the appropriate time, students must apply in person to the department of their choice to request acceptance into a major. The application may be accepted, conditionally accepted, or rejected by the department. Only after formal acceptance are students considered majors. Thereafter, they must be guided in selection of their courses in their program by the department chair or an advisor appointed by the chair.

The dean and the chair of the major department may refuse the application for a given major of a student who has not shown sufficient promise in that particular subject. If a department grants only conditional acceptance, it may reject the student as a major at the beginning of the second semester of the junior year or after the student completes six credit hours of upper-division work in the department or upon evidence of continued academic deficiency.

Any change affecting the fulfillment of major requirements must be approved in writing by the appropriate dean and department chair.

Students are held to major requirements in force at the time of their acceptance into the major. If after this they change their curriculum or their major for any reason, they are held to the major requirements in force at the time of acceptance into the new major.

Double Major

Some students wish to complete two majors within their academic program. This is permitted providing the students are accepted as a major by both departments (and both departments so notify the appropriate dean), are assigned an academic advisor in each department, and complete all the requirements in force at the time of acceptance for each major. **Please note:** It is understood that, even though two majors may be completed, **only one degree will be awarded** upon completion of all requirements. Thus, in some situations, students with a double major will have to choose between the B.A. and B.S. degree.

Standing in the Major

Candidates for a degree must complete the required sequence of courses in the major field of study with at least a C average (2.0). Students who fail to maintain this average may be required to change majors.

All courses taken in the major field will be computed in the quality-point average required for the major.

Comprehensive Examinations

In addition to the fulfillment of all general and specific degree requirements, many departments require candidates to pass a comprehensive examination in the major field. Consult specific disciplines and departments for requirements. Comprehensive examinations are concerned with the major subject as a whole, not so much with particular courses. Their purpose is to encourage students to mature and integrate their knowledge by personal effort and private study.

Students are urged to begin preparing for the comprehensive examination as early as the junior year. They may be aided by syllabi published by the departments. Comprehensive examinations are usually taken in the final semester of the senior year, when students have completed or are taking the last course(s) to complete major requirements. Students in the College of Arts and Sciences who fail to perform satisfactorily in the comprehensive examination are permitted to retake the examination or an equivalent one within the same semester.

Liberal Education at John Carroll University

Degree candidates in the Boler School of Business may be required to pass a comprehensive examination testing the grasp of principles and relationships and the ability to reach reasonable solutions to typical business and economic problems. Candidates may also be required to pass a comprehensive examination in the major field. Such examinations may be oral or written, or both. Students who fail to perform satisfactorily in the comprehensive examination will be required to take the examination the next time it is scheduled.

Minors and Concentrations

The College of Arts and Sciences offers a number of minors and interdisciplinary concentrations. The Boler School of Business offers a minor in business and a minor in economics. Concentrations and minors are optional. They are described in other sections of this *Bulletin*.

Electives

Courses not required in the Core or in the major are considered electives. Elective courses should be chosen, in consultation with the academic advisor, for a definite purpose – to provide for greater breadth and depth in the total educational program, to provide support for a major field, or as further preparation for a future career.

Independent Study in the Major and Electives

For students who demonstrate superior ability, an instructor may suggest a plan of independent study that shall include some remission of the obligation of regular class attendance. Independent-study plans in each case shall have the recommendation of the department chair and the approval of the appropriate dean.

Undergraduate Student Research

The University recognizes the importance of student research to the educational experience and offers research opportunities for and recognition of student research. Students may apply for research funds up to \$250, pending availability. Academic departments may provide research awards and opportunities for research during the academic year and for summer research. Students can present their research at the *Celebration of Scholarship!* For more information contact the Associate Academic Vice President for Student Learning Initiatives and Diversity.

Writing Center

The Writing Center offers tutorial assistance to all students, faculty, and staff in the University. Located in the O'Malley Center, Writing Center consultants are able to assist with all aspects of the writing process, from First-Year Seminar papers to graduate theses.

College of Arts and Sciences

The College of Arts and Sciences was established in 1886 under the name St. Ignatius College. The college is coeducational and initially enrolls all undergraduate degree-seeking students, both full-time and part-time.

Besides the University Core Curriculum in the Liberal Arts, the College of Arts and Sciences offers programs of study in 35 majors leading to degrees of Bachelor of Arts (B.A.), Bachelor of Arts in Classics (B.A.Cl.), and Bachelor of Science (B.S.).

Applying for Admission

All potential students seeking undergraduate admission to the University apply through the Office of Admission.

Transfer students and part-time students should refer to the pertinent admission procedures described on pages 19-21 of this *Bulletin*.

Applicants must follow the general University regulations on admission, explained fully in the admission section of this *Bulletin*, pages 16-27.

Majors and Degrees

The major normally consists of a group of courses in a single department, a number of which must be in the upper division. The specific courses, the number to take for the major, and the order in which to take them can be found in the sections of this *Bulletin* devoted to departments and course descriptions, beginning on page 126.



Single-Discipline Majors

Majors may be taken in the following fields, leading to a Bachelor of Arts or Bachelor of Arts in Classics degree; specialized tracks are listed in italics under the majors that have them:

Art History Classics

> Classical Languages Classical Studies

Communication and Theatre Arts

Integrated Marketing

Journalism

Persuasive and Relational

Communication

Theatre
Visual Media
Economics
Education

Early Childhood Middle Childhood

Multi-Age

Adolescent/Young Adult

English

Literature

Creative Writing

Professional Writing

French

Exercise Science

History

Mathematics Teaching

Philosophy

History of Philosophy Critical Social Philosophy Philosophy, Law, and Politics Health, Ethics, and Science

Physical Education

Physics

Political Science

Law and Society

Global and Foreign Area Studies Methods and Spatial Analysis Theology and Religious Studies

Sociology & Criminology

Criminology Cultural Diversity

Human Service, Health & Social Justice

Spanish

Majors in the sciences may be taken in the following fields, leading to the Bachelor of Science degree:

Biochemistry

Biology

Cell and Molecular Biology

Comprehensive Chemistry
Computer Information Systems

Computer Science

General Chemistry Engineering Physics

Environmental Science

Mathematics

Physics Psychology

Child and Family Studies

Eating Disorders Forensic Psychology

Industrial/Organizational Psychology

Mental Health Services

Psychology and Sports Sciences

Interdisciplinary Majors

East Asian Studies—See page 188 for information.

Humanities—See page 250 for information.

International Business with Language and Culture—See page 252 for information.

Peace, Justice, and Human Rights—See page 286 for information.

Women's and Gender Studies—See page 353 for information.

World Literature—See page 213 for information.

B.S.-M.B.A. 5-Year Program for the Arts and Sciences

The 5-year program offers John Carroll students from the arts and sciences the opportunity to continue their education and earn an M.B.A. degree with one additional year of study. All students are eligible for this program.

Students will take courses from the Boler School of Business throughout their undergraduate education. They should consult with their academic advisor and the associate dean in the College of Arts and Sciences to provide support and assistance in course selection. In addition, students will come together once each semester and hear speakers from the community talk about career opportunities for science M.B.A.'s. For more information go to the website www.jcu.edu/boler/undergrad/5thyear.html.

Optional Minors

In addition to majors, most departments also offer optional minors, which normally consist of 18 to 21 semester hours of work in one department. Specific courses may be required by various departments. For more detailed information, consult the departments and course descriptions sections of this *Bulletin*, beginning on page 126.

Optional minors may be completed in the following fields:

Art History Biology

Business (through Boler School

of Business) Chemistry Classical Studies

Communication and Theatre Arts

Computer Science Creative Writing Economics

Engineering Physics

English

Foreign Affairs

French German Greek History Latin

Mathematics Philosophy

Physical Education and Exercise Science

Physics

Political Science (General)

Psychology

Sociology & Criminology

Statistics Spanish Theatre Arts

Theology and Religious Studies

United States Politics

Interdisciplinary Minors and Concentrations

In addition to the majors and optional minors listed above, interdisciplinary minors and concentrations may be completed by students who so elect. These are listed below and described on pages 83-90 of this *Bulletin*.

College of Arts and Sciences

Minors

Catholic Studies
East Asian Studies
Entrepreneurship

Forensic Behavioral Science

Humanities

Leadership Development Modern European Studies Peace, Justice, and Human Rights Population and Public Health Women's and Gender Studies

Concentrations

Africana Studies
Aging Studies
Economics/Mathematics
Environmental Studies
International Business
International Economics and
Modern Languages

International Studies
Italian Studies
Latin American and Latino Studies
Neuroscience
Political Communication
Public Administration and Policy
Studies

General Requirements for Degrees

- 1. Candidates must earn no fewer than 128 credit hours, including all Core and major requirements, with a general average of at least 2.0 (C) for all course work at John Carroll University.
- 2. Candidates must complete the last 30 hours of instruction in residence.
- 3. Candidates must complete all of the course and proficiency requirements for the degree sought.
- 4. Candidates must complete all of the major requirements with an average of at least 2.0. Similarly, optional minors and concentrations must be completed with at least a 2.0 average.
- 5. Students are held to the degree requirements in force at the time of their entrance into the college and program. If they are formally readmitted to the college, they are held to the requirements in force at the time of their readmission
- 6. All degree requirements normally must be completed within 10 years of the date on which college work was begun. Exceptions must be approved by the dean, associate dean, or assistant dean.
- Candidates must file an application for degree by the date specified in the academic calendar.
- 8. Candidates must fulfill all financial obligations to John Carroll University.
- 9. Attendance at the commencement exercises, though optional, is expected of all members of the graduating class.

Specific Requirements

Degree candidates must fulfill all Core and major requirements as explained in detail in this *Bulletin*. See the earlier chapter on Liberal Education at John Carroll University, pages 58-70, and note requirements for majors as specified in the sections on departments and course descriptions, beginning on page 126.

Honors Program

The University offers an Honors Program to a selected number of outstanding students from both the College of Arts and Sciences and the Boler School of Business. Membership is open to those students who demonstrate potential for excellence as determined by such data as educational record, test scores, letters of recommendation, writing samples, and an interview with the program director.

Satisfactory completion of the Honors Program will be noted at the time of graduation and will be posted on each student's permanent record. The diploma from John Carroll University will note that the recipient is an Honors Scholar.

The program, its requirements, and courses are described on pages 244-246.

Non-Degree Certificate Program

Certificate programs consist of approximately 60 semester credit hours of organized class work directed to general areas within the University. Upon completion of a certificate program, students may choose to complete the remaining requirements for a bachelor's degree. The courses in the program are regular University courses and carry college credit. The electives require the approval of an academic advisor. It should be noted that the "certificate" program described below is not to be confused with programs designed to complete requirements for teacher certification. Those programs are fully described in the section of this *Bulletin* on the Department of Education and Allied Studies. Currently, the following certificate program is offered in the College of Arts and Sciences:

Certificate in Chemistry

CH 141-144 (or 151H, 153)	General Chemistry5-10 cr.
CH 221, 222, 223, 224	Organic Chemistry 8 cr.
CH 261, 263	Analytical Chemistry
CH 361 (or 365, 366), 367	Physical Chemistry
CH 441, 443	Instrumental Analysis
CH xxx	Chemistry elective
MT 135 (or 133, 134), 136	Calculus & Analytic Geometry8-10 cr.
PH 125, 125L, 126, 126L	General Physics 8 cr.
or 135, 135L, 136, 136L	•
EN 111, 112	English Composition 6 cr.
CO 100	Speech Communication
	2 electives (with approval of advisor) 6 cr.

John M. and Mary Jo Boler School of Business

A Department of Business Administration was created in 1934 in the College of Arts and Sciences to provide professional training for students aspiring to positions of responsibility in the business world. In 1945, this department grew into the School of Business. In 1996, the school was named in honor of John M. and Mary Jo Boler.

Programs of concentration are offered in eight professional fields, leading to the degree of Bachelor of Science in Business Administration (B.S.B.A.) or Bachelor of Science in Economics (B.S.E.). The Boler School of Business also offers graduate programs leading to the Master of Business Administration (M.B.A.) and Master of Science in Accountancy (M.S.Acc.). These programs are fully described in *The Graduate Studies Bulletin*, www.jcu.edu/graduate/bulletin12-14.

Mission and Core Values

The mission of the Boler School of Business is to develop and inspire tomorrow's leaders through the Jesuit tradition of educational excellence.

The Boler School of Business carries out this mission by:

- Striving to foster the ongoing development of the highest standards of personal integrity among all members of its community.
- Promoting the achievement of educational excellence through a challenging course of studies.
- Emphasizing development and implementation of innovative techniques that keep it at the forefront of the dynamic business education environment.
- Nurturing the intellectual, personal, and moral development of each student and inspiring each to become a person for others.
- Committing to incorporate an international dimension into its teaching, research, and service programs.
- Encouraging all of its constituents to develop a sense of belonging and
 responsibility within the community, to respect and care for one another, and
 to take actions that they believe promote the common good.
- Treating faculty scholarship as an essential part of the process that couples lifelong learning with teaching excellence.

More information about the Boler School's core values is available from the dean's office or on the Boler School's website at www.jcu.edu/boler.

Applying for Admission

All potential students seeking undergraduate admission to the University apply through the Office of Admission.

Degree-seeking applicants must petition for admission to the Boler School after accumulating 45 semester hours of college credit. Applicants must have an average grade of C or higher for all course work completed at John Carroll University. They also must have completed the following courses with an average grade of C or higher: AC 201, EC 201, MT 130, and BI 107, 108, and 109. If the applicant transfers some or all of these courses to John Carroll from other institutions, then a minimum of a C average must be attained in at least 9 hours of course work completed in the Boler School of Business. Students may alternatively demonstrate competencies in the BI 107-109 course work through placement waiver administered by the Boler School.

Students enrolled in the College of Arts and Sciences should complete an application to the Boler School of Business and submit it to their academic advisor. Applications are distributed at a meeting conducted each spring semester by the staff of the Boler School. After reviewing credentials, the Boler School will advise students that they are (a) accepted, (b) deferred, or (c) ineligible.

Students unable to satisfy the requirements for admission as degree candidates, but who exhibit the ability to do college work at the junior level, may accumulate no more than a total of 30 credits in courses offered by the Boler School prior to being admitted as degree candidates. However, no credit received may be counted toward a degree until all admission requirements have been fulfilled.

Students transferring from approved colleges and universities must satisfy the general University regulations governing transfer students. All transfer applicants are accepted into the College of Arts and Sciences, and the assistant dean of the Boler School of Business will evaluate transfer credit before approving acceptance into the Boler School.

Majors and Degrees

Degree programs of the Boler School of Business consist of the business core and the major, which together total approximately 50% of the hours required for graduation. The core courses provide a study of the environment of business, its major functional areas, and the commonly used techniques of analysis. The major consists of a minimum of seven courses.

Majors may be earned in the following fields:

Accountancy Finance Management
Business Logistics Human Resources Management
Economics International Business
with Language and Culture

Candidates for the degree of Bachelor of Science in Business Administration (B.S.B.A.) select accountancy, business logistics, finance, human resources management, international business with language and culture, management, or marketing, while candidates for the degree of Bachelor of Science in Economics (B.S.E.) choose economics.

Boler School of Business

Optional minors are available through the College of Arts and Sciences (see page 73) and the Boler School of Business (see page 79).

General Requirements for Degrees

To be eligible for a degree, candidates must satisfy the following general requirements:

- 1. The completion of a minimum of 128 credit hours of acceptable college work.
- 2. The completion in residence of 25 hours of business core courses at the 200 level and above.
- 3. Except in Boler-approved study abroad programs, no major courses may be taken outside of John Carroll University.
- 4. The fulfillment of all course work in the degree program. At least the last 30 hours must be completed in residence.
- 5. The attainment of an average grade of C (2.0) or higher in the courses completed in the major, courses completed in the Boler School of Business, and in all courses completed at the University (including all minors and concentrations), each group considered separately.
- 6. If required, the passing of a comprehensive examination in the major field. Such examinations may be oral or written or both.
- 7. The completion of all degree requirements within ten years of the date on which college work was begun.
- 8. The filing of an application for the degree by the assigned day, for degrees to be awarded in May, in August, or in January.
- 9. The fulfillment of all financial obligations to John Carroll University.
- 10. The completion of the following business core courses (100 & 200 level before 300 level):
 - a. Computer applications—BI 107, 108, 109; or demonstrated competency.
 - b. Accounting Principles—AC 201-202
 - c. Principles of Economics—EC 201-202
 - d. Business and Economic Statistics—EC 207-208
 - e. Business Communications—MN 202
 - f. Management Information Systems—BI 200
 - g. Organizational Behavior and Management—MN 325
 - h. Productions/Operations Management—BI 326
 - Business Finance—FN 312
 - j. Marketing Principles—MK 301
 - k. The legal environment/business law requirement(s) differ by major. Please refer to a particular major in this *Bulletin* for the exact requirements or options allowed.
 - 1. Strategic Management: MN 499 is required for all students seeking the B.S.B.A. and is to be taken in the senior year. Economics majors seeking the B.S.E. take EC 499 A and EC 499 B instead of MN 499.

- 11. The completion of the University Core Curriculum (see Liberal Education at John Carroll University, pages 58-70). In completing the liberal arts core, Boler School of Business students must take the following courses:
 - a. EC 201-202 plus one other course in Division III (a total of 9 hours).
 - b. PS 101, MT 130 and one laboratory science course in Division IV.
 - c. PL 311 (Business Ethics) in Division V.

Minors in the Boler School of Business

Minor in Economics

The minor in economics is discussed in detail in the section on Economics on pages 192-196.

Minor in Business

The minor in business is offered to those students who choose to major in a field of study within the College of Arts and Sciences but would like to receive a foundation in business. The minor in business consists of a total of 30-34 credit hours and the following courses:

BI 107,108, 109	Spreadsheet, Database and Communication
	Applications (or demonstrated competency) 0-3 cr.
AC 201-202	Accounting Principles 6 cr.
EC 201-202	Principles of Economics 6 cr.
EC 207 and EC 208, or	
MT 122 or MT 228	
or MT 229	Statistics
MN 325	Organizational Behavior and Management 3 cr.
MK 301	Marketing Principles
Directed Elective	3 cr.
Choose one of the following:	
BI 200	Management Information Systems
BI 326	Production/Operations Management
LG 328	Business Logistics
Electives (2)	6 cr.
Two upper-division courses from the same major in the Boler School, with the	
exception of MN 499 (Strategic Management).	

Please note the following:

- 1. Students are encouraged to consider FN 312 (Business Finance) for one elective. For those who choose FN 312, the second elective may be in any of the majors, subject to the same restrictions as above.
- 2. Students not admitted to the Boler School of Business may not take more than 30 hours of Boler School course credit. Therefore, students who choose a minor in business should **not** take MN 202 (Business Communications).

Boler School of Business

- 3. Many business courses have prerequisites, which are strictly enforced. Therefore, additional course work may be required to complete this minor. The minor must be completed with at least a 2.0 GPA.
- 4. Students wishing to minor in business are advised to declare this intention in the dean's office of the Boler School of Business as soon as possible but no later than the beginning of their junior year.

Post-Baccalaureate Accountancy Sequences in the Boler School of Business

Sequence applicants should:

- 1. Complete and return to the Boler School of Business the online application available at https://web4.jcu.edu/pjcu/bwskalog.P DispLoginNon.
- 2. File official transcripts of all previous college work with the Boler School.
- 3. After all credentials have been filed, meet with the assistant dean for graduate business programs (216-397-1970).

Students who have earned a bachelor's degree and desire the necessary course work to be eligible to sit for the CPA examination in Ohio must complete a minimum of 30 semester hours in Accountancy and 24 hours in other business subjects. It is recommended that students accomplish the primary sequence indicated below, two accounting electives, and other business courses as required (e.g., business law, economics, finance, marketing, management). Students may discuss the various options with a member of the Department of Accountancy. For complete information, visit the website of the Ohio Accountancy Board at http://acc.ohio.gov/.

Primary Sequence AC 201-202 Accounting Principles. 6 cr. AC 303-304 Intermediate Accounting. 6 cr. AC 312 Cost Analysis and Budgetary Control. 3 cr. AC 321 AC 341 Accounting Information Systems 3 cr. AC 431 Select at least two of the following: Electives AC 422 AC 481 Advanced Financial Accounting................................ 3 cr. AC 484 Financial Accounting Theory 3 cr. AC 422 AC 481 Advanced Financial Accounting................................ 3 cr. AC 484 Financial Accounting Theory 3 cr. Recommended Business Electives MN 463 MN 464

Five-Year Bachelor's/Master's Programs

Five-year bachelor's/master's programs are offered in business administration, English, mathematics, nonprofit administration, and theology and religious studies. There is also an 11-month program in the Department of Education and Allied Studies that leads to a Master of Education and teacher licensure following the bachelor's degree. These programs allow students to complete both the B.A. or B.S. and the master's degree in five years. Typically, students apply for admission to the M.A. or M.B.A. program in their junior year, begin taking graduate courses in their senior year, and complete the master's degree in their fifth year. (Note: graduate courses taken in the senior year are not counted as part of the 128-credit-hour requirement for the bachelor's degree.) Brief descriptions of these programs follow. For specific details, see the *Graduate Studies Bulletin* or contact the appropriate department chair.

MBA Business Administration

The 5th-year M.B.A. is for students from any major who would like to develop managerial skills and business expertise. The program is uniquely structured to allow students to finish the degree in 12 months, assuming successful completion of specific undergraduate business classes. The M.B.A. program is 33 credits, and students are often able to take the first course during their final undergraduate semester. Students who have focused their undergraduate studies outside of business (e.g., history, biology, psychology) will gain business knowledge to expand their career opportunities. Accounting undergraduates will extend their accounting knowledge (through their choice of electives), earning the additional college credits necessary for the CPA exam. Business undergraduates will enhance their analytical skills and can select electives to expand their discipline-specific expertise in a new area.

English

The five-year B.A./M.A. program in English allows English majors to complete both the B.A. and M.A. in five years. The master's degree is a ten-course (30-credit-hour) program. Eligible students take one graduate course in the fall of their senior year and one more in the spring of their senior year. In the summer following graduation, students take two master's courses. In the fifth year students take six graduate courses (three per semester) and pass the master's examination. In the summer after the fifth year they complete the M.A. essay.

Mathematics

The five-year B.S./M.S. program is designed for students who enter the college with advanced placement credit for Calculus I and II and at least two other three-credit courses. Students who do not enter with advanced course work in mathematics are still eligible for the program; however, they may need to take additional summer course work in order to prepare for graduate work. The master's degree is a 30-credit-hour program. Eligible students take six graduate credits in the fall and spring semesters of their senior year and nine credits in the fall and spring of the fifth year.

Nonprofit Administration

The five-year B.A./M.A. program is designed for students who seek careers managing or administering nonprofit organizations in a variety of areas, including the arts, social services, or health care. The master's degree is a 36-credit-hour program. Students take one graduate-level course in the fall and spring of senior year; six credit hours in the summer following graduation; 18 credits in the fall and spring of the fifth year; and 6 credits in the following summer. The five-year program is open to all majors.

Theology and Religious Studies

The five-year B.A./M.A. program in theology and religious studies is designed for undergraduate Theology and Religious Studies majors who wish to earn the master's degree with an additional year of study. The master's degree is a 30-credit-hour program. Students typically complete 3 graduate credits each in the fall and spring of senior year; 6 credits in the summer following graduation; and 18 credits in the fall and spring of the fifth year.

School-Based Master of Education Program

Although not a traditional five-year program, the school-based program is designed for those who hold a bachelor's degree and wish to obtain the M.Ed. and an Ohio initial teaching license in one year. Students may pursue licensure in Early Childhood, Middle Childhood, Adolescent Young Adult (AYA), or Multi-Age (MA)—Physical Education. Credit hours and requirements vary by license. Middle Childhood and AYA/MA students may need additional course work in their teaching fields. The program is an intensive, eleven-month clinically-based program that begins in the summer and concludes at the end of the following spring semester.



In addition to the required major and optional minor programs, the University also offers a number of interdisciplinary minors and concentrations as options to supplement and strengthen specific degree majors. These programs consist of approximately 18 to 39 semester hours of course work in which the student has attained at least a 2.0 (C) average. To qualify, students must complete all the requirements of the related major as specified in this *Bulletin*. A completed minor or concentration is noted on the transcript. For further details about minors and concentrations, and recommended courses, students are advised to contact the coordinator/director or the chair of a department participating in the minor or concentration.

Interdisciplinary Minors

The following three interdisciplinary minors have their own sections in this Bulletin; please consult the listed pages for detailed information. The other interdisciplinary minors are described below.

East Asian Studies—See page 188 for information.

Entrepreneurship—See page 223 for information.

Leadership Development—See page 265 for information.

Catholic Studies—Under the auspices of the Institute of Catholic Studies, this minor aims at promoting serious reflection on the richness and vitality of the Catholic intellectual tradition through the ages. This minor is interdisciplinary in nature, highlighting within the history of ideas the contribution of Catholic intellectuals and scholars across various disciplines. The Catholic Studies minor enables students to assess human intellectual activity and experience in the light of the Catholic faith, and to examine the Roman Catholic Church's dynamic interaction with and interpenetration of cultures, traditions, and intellectual life. The minor consists of 18 credit hours from approved Catholic Studies courses distributed among the following disciplines: one course in theology and religious studies, one course in philosophy, one course in the humanities, and two electives from approved Catholic Studies courses. The final course in the minor is a required seminar, "The Classics of the Catholic Intellectual Tradition," an interdisciplinary course in which students read the works of significant Catholic intellectuals from across the ages as a way of integrating the perspectives studied in their other courses within the minor. In fulfilling these requirements, a student must take a minimum of three courses at the 300-400 level. Courses offered as part of the Catholic Studies minor may satisfy Core Curriculum requirements or major/minor requirements within a specific discipline. Students in the minor are encouraged to study abroad in programs that offer their own courses in Catholic thought and experience, including the John Carroll program in Rome. Scholarships and summer internships are also available. Coordinator: Dr. Paul V. Murphy, Director, Institute of Catholic Studies.

Forensic Behavioral Science—Forensics is the application of science to the field of law. There is a wide variety of careers in this general area; students who are interested in the application of specific skills to the criminal and legal processes are encouraged to explore the minor, which is open to all students regardless of major.

The minor consists of 25 credit hours in courses taken in the Department of Psychology and the Department of Sociology and Criminology. (Please note that PS 101 is prerequisite to all other PS courses and that SC 101 is prerequisite to all other SC courses.) To complete the minor, all students are required to take SC 223 (Forensics: Overview of Crime Scene Analysis). All students also must elect either PS 370 (Forensic Psychology) or SC 388 (Forensic Science in Criminal Justice).

Required course work in ethics may be completed by taking one of the following courses: SC 300 (The Death Penalty), SC 435 (Law, Ethics, and Criminal Justice Policy), or PS 471 (Seminar in Ethics in Psychology).

Students are required to take two additional courses in psychology from the following list of courses: PS 435, PS 455, PS 457, PS 470, and PS 471. (Note: PS 471 may not be used to fulfill this requirement if it has been used to fulfill the requirement in ethics.)

Students are required to take two additional courses in sociology and criminology from the following list of courses: SC 220, SC 240, SC 300, SC 343, SC 435, SC 440, and SC 365. (Note: neither SC 300 nor SC 435 may be used to fulfill this requirement if it has been used to fulfill the requirement in ethics.)

Students must also complete either SC 494 or PS 494 (Internship in Forensic Behavioral Science.) These are field-based internships; the field experience and the accompanying academic seminar provide the student with direct experience in forensic behavioral science. This course is taken in the senior year after completion of 18 hours in the minor. Please contact the coordinator of the program for further information regarding scheduling, requirements, and advice related to this minor. **Coordinator:** Dr. Duane Dukes, Department of Sociology and Criminology.

Modern European Studies—This minor allows students to pursue concentrated thematic or regional study of Europe from the Enlightenment to the present in the fields of history, politics, literature, culture, and economics. Students participating in the minor are strongly encouraged to study abroad.

The program consists of 24 credit hours, including six hours of language beyond the six required for the University Core, to be taken in the modern European language satisfied for the Core (12 hours total in the same language). Students who complete 301/302 in fulfillment of their Core language requirement are not required to take additional courses to fulfill the MES proficiency requirement. Languages applied toward the minor should be those taught at John Carroll. Other requirements include a "depth" and a "breadth" requirement. The depth requirement should include at least three elective courses from a list of approved courses (available from the coordinators), usually taken in the student's major area; one of these courses should be a seminar, an upper-level course, or a senior thesis on a topic related to Modern European Studies.

The breadth requirement should include at least three courses from the Modern European Studies approved list in three departments outside the student's major. Up to two courses at the 100- or 200-level from the list of approved courses may be applied to the depth or breadth requirement. Given the importance of foundational course work for a richer appreciation of modern European developments, students may apply one course in Medieval or Early Modern European fields toward fulfilling the MES minor. Upon completion of these requirements, students will receive a certificate in Modern European Studies. **Coordinators:** Dr. John McBratney, Department of English.

Population and Public Health (PPH)—This interdisciplinary minor is for students in any major interested in protecting and improving the health of communities. The minor addresses biological, social and cultural, environmental, ethical, and public policy influences on a population's health and requires critical, cross-disciplinary thinking applied to solving health problems. The course of study consist of three parts, altogether totaling 10 credit hours of prerequisite courses that simultaneously fulfill divisional John Carroll Core requirements: **Biology:** BL 112/112L with a grade of B or better, or BL 156, BL 158. **Statistics:** a grade of C or better must be earned in MT 122, MT 228, MT 229, or EC 208. **Social and behavioral science:** SC 101 or SC 245.

In addition to the prerequisite courses, students will fulfill 26-27 credit hours of requirements in the core areas of Population and Public Health. **Public health:** SC 273 and AR 273. **Epidemiology:** BL 240. **Environmental studies:** Choose one from BL 109/109L, SC 290, SC 380, or PO 361. **Social and behavioral health:** Choose one from BL 260, SC 275, SC 285, SC 315, SC 343, SC 370, SC 385, or PS 226. **Policy studies:** Choose one from EC 405, PO 204, PO 309, or PO 324. **Global health:** Choose one course not taken to fulfill other PPH requirements from BL 260 or SC 370. **Public health practice:** AR 473 (capstone course with internship). **Elective course:** Choose one course not taken for other PPH minor requirements from BL 260, BL 310/310L, BL 410, CO 455, PE 200, PL 316, PO 203, PO 204, PO 309, PO 324, PO 361, PS 226, SC 275, SC 285, SC 315, SC 330, SC 343, SC 370, or SC 385. **Coordinator:** Dr. James Lissemore, Department of Biology.

Note: Admission to the minor is limited by the enrollment cap for AR 473.

Interdisciplinary Concentrations

Africana Studies—This concentration is designed to provide students with a focused, systematic, and interdisciplinary plan to study multifaceted issues central to the African Diaspora. The concentration offers two tracks—African Diaspora Cultural Studies and African-American Cultural Studies in Africana Studies. Each track is 22 hours and shares a common core of courses. The following courses are required for all students: BL 115/115L, either PS 342 or SC 255, and AR 499 (Practicum and Policy Evaluation). Students must meet with the concentration coordinator at least one semester prior to enrolling in AR 499, which will place students in an organization working with African Diasopora or African-American residents/families with respect to a specific policy application. Permission of the concentration coordinator is required.

African-American Cultural Studies students are additionally required to take one course each from four of the groups labeled A through F, for a total of 12 hours: Group A—HS 131, 152, 153, 197 (with coordinator approval), 343, 436, 438, 495 (with approval); Group B—PL 390, 398 (with approval); Group C—TRS 299 (with approval), TRS 399 (with approval); Group D—PO 207, 310, 312, 315, 316; Group E—EN 278, 299 (with approval); Group F—CO 321.

African Diaspora Cultural Studies students are additionally required to take one course each from four of the groups labeled A through D, for a total of 12 hours: Group A—HS 131, 151, 197 (with coordinator approval), 343; Group B—PL 285, 390; Group C—TRS 299 (with approval), 328 PL 390; Group D—PO 397 (with approval); Group E—EN 286, EN 480, IC 240; Group F—CO 321. **Coordinators:** Dr. Sheri Young, Department of Psychology; Dr. Tamba Nlandu, Department of Philosophy.

Aging Studies—This concentration provides an in-depth understanding of the aging process. Usually the recommended major is sociology and criminology, psychology, or theology and religious studies, but all other majors are possible. The concentration consists of 22 hours, including 16 hours of required courses in sociology and criminology, psychology, and theology and religious studies, with a required four-hour internship. The remaining six hours consist of approved electives. The following are required: PS 365; TRS 260; SC 285, 475, 490. The two electives, each from a different department, must be chosen from the following: PL 302, 316; PS 386, 457, 462; SC 273, 295, 493. **Coordinator:** Dr. Phyllis Braudy Harris, Department of Sociology and Criminology.

Economics/Mathematics—Students must major in economics or mathematics. Both majors must take EC 201-202, 301, 302; MT 135-136, and 233. Economics majors must complete MT 421 or 422, and two mathematics electives numbered 271 or above (MT 242 may be substituted for MT 342). Mathematics majors must complete EC 410 and one other upper-division economics elective. **Coordinators:** Dr. Paul Shick, Department of Mathematics and Computer Science; Dr. Thomas J. Zlatoper, Department of Economics and Finance.

Environmental Studies—The Environmental Studies concentration acquaints students with the knowledge to understand and solve environmental problems: the operations of the physical, biological, and chemical systems of our planet; the human impact on them; the cultural bases of our interactions with nature; and the way in which political and social change impinges on our environment. Students pursue this concentration by completing the 21 credit hours selected from the following courses: AR 290/297; BL 103/103L, 109/109L, 111/111L, 155-160, 206/206L, 215/215L, 222, 224/224L, 240, 255, 260, 331, 370, 410, 420, 424, 435/435L, 444/444L, 447/447L, 479; CH 103/103L, 105/105L, 141-144, 221-224; EC 315; PH 115/115L; PL 314, 315, 375; PO 204, 312, 361, 363, 464; SC 273, 290, 360, 380, 390. Occasional special topic courses may count toward the concentration with the coordinator's approval.

Students majoring in the natural sciences are required to take three courses in the social sciences or humanities in at least two different disciplines. Students majoring in the social sciences or humanities are required to take three courses in the natural sciences in at least two different disciplines. Independent studies and internship opportunities may be arranged with the coordinator of the concentration. **Coordinator:** Dr. Wendy Wiedenhoft-Murphy, Department of Sociology and Criminology.

International Economics and Modern Languages—Students must major in economics or modern languages. The following courses are required: PO 103; EC 201, 202; two courses from EC 342, 343, 352; FN 439; and two more upper-division economics courses. EC 301 is required for economics majors and recommended for language majors. Economics majors are required to take four courses in one language at the 300 level or above. Language proficiency should be determined as early as possible. Both majors must take two other courses in the area of international studies. These two courses are to be chosen in consultation with the major advisor. Coordinator: Dr. Simran Kahai, Department of Economics and Finance.

International Studies—The International Studies concentration is administered through the Center for Global Education and is open to all majors. The concentration promotes an awareness of international diversity and global interdependence through the comparative study of cultures and analysis of international issues. Students in this concentration work with the director of the Center for Global Education to create a coherent course of study on a particular topic, issue, or world region. A minimum of 27 credit hours is required to complete the concentration, including:

- The two international courses required by the University Core.
- Proficiency in a foreign language through the intermediate level, demonstrated by taking the intermediate-level courses or placing out of them.
- Other specified course work in three different departments, including the student's major department.



Students are strongly encouraged to apply credits earned through study abroad to the concentration.

For more detailed information on this concentration, including particular course requirements, students should consult their advisors and the director of the Center for Global Education as early as possible. **Coordinator:** Dr. Andreas Sobisch, Department of Political Science, and Director, Center for Global Education.

Italian Studies—Developed by the Bishop Anthony M. Pilla Program in Italian-American Studies, this interdisciplinary concentration (art history, philosophy, history, and Italian) seeks to foster an appreciation of Italian and Italian American history and culture. Students are exposed to the major intellectual, artistic, and cultural contributions that Italians and Italian-Americans have made throughout history as they complete 21 credit hours of approved course work. Six of these credit hours must be in Italian language (2 IT courses at the 200 level or above), while 6 hours complete the Italian-American culture requirement. Additional courses that satisfy these requirements are designated each semester by the Italian Studies Committee. Coordinator: Dr. Santa Casciani, Department of Classical and Modern Languages and Cultures, and Director, Bishop Pilla Program in Italian American Studies.

Latin American and Latino Studies—The Latin American and Latino Studies concentration at John Carroll is multidisciplinary. Bringing together courses relevant to the study of Latin American and Latino culture, social structure, politics, and history, its primary goal is to offer students the opportunity to develop a basic level of expertise in Latin American studies. Above all, students who complete this program of study enhance their liberal arts education with a foreign area specialization. Depending upon the student's particular major and focus within the concentration, this program prepares students for advanced study at the graduate level or for a career in business, journalism, government, or private development organizations.

The concentration is administered by the Latin American and Latino Studies Concentration Committee (LALSCC). The LALSCC is composed of faculty from several departments in the College of Arts and Sciences.

While requirements are flexible to accommodate students with different interests and majors, the concentration allows for and encourages a focus in a particular area of Latin American or Latino studies. If HS 274 or PO 254 is used to satisfy A.3. (below) of the core requirements, the concentration requires a minimum of eighteen course credits in addition to the language requirements.

Requirements:

A. Core of the concentration:

- 1. SP 301 (along with satisfaction of its prerequisites).
- 2. At least three courses from history and political science, with at least one course from each of these disciplines.
- 3. At least one course must be HS 274, PO 254, or SP 314.

B. Electives of the concentration:

Nine hours of other courses from the list of approved courses (available at the LALSCC website) or accepted by the LALSCC through petition. For a current list of courses that may be used to satisfy the requirements of the concentration, please see either of the LALSCC coordinators or visit the concentration's website at www.jcu.edu/latam. Coordinators: Dr. Gloria Vaquera, Department of Sociology and Criminology; Dr. Megan L. Thornton, Department of Classical and Modern Languages and Cultures.

Neuroscience—This concentration is coordinated by the Department of Psychology and is intended for biology, chemistry, and psychology majors who desire an interdisciplinary approach to the study of physiology, biochemistry, and behavior of higher organisms. A GPA of 2.5 in BL 155-158 and CH 141-144 is required for admission into the program.

Required courses for biology majors: BL 155, 156, 157, 158, 360, 360L; CH 141, 142, 143, 144, 221, 222, 223, 224; BL 475 and CH 431 (or CH 435 and 436); PS 326, 426, 497N (or an additional CH or PS course approved by the neuroscience coordinator). A GPA of 3.0 is required for enrollment in PS 497N.

Required courses for chemistry majors: BL 155, 156, 157, 158, 360, 360L; CH 141, 142, 143, 144, 221, 222, 223, 224, 435, 436; PS 326, 426, 497N (or an additional BL or PS course approved by the neuroscience coordinator). A GPA of 3.0 is required for enrollment in PS 497N.

Required courses for psychology majors: BL 155, 156, 157, 158, 360, 360L; CH 141, 142, 143, 144, 221, 222, 223, 224; PS 101, 326, 386, 426, 497N (or an additional BL or CH course approved by the neuroscience coordinator). A GPA of 3.0 is required for enrollment in PS 497N. **Coordinator:** Dr. Helen Murphy, Department of Psychology.

Perspectives on Sex and Gender—Effective spring semester 2013, this concentration has been replaced by a minor in Women's and Gender Studies. For further information, please contact Dr. Katherine Gatto, Director, Women's and Gender Studies.

Political Communication—This concentration is open to all students. Students combine courses in journalism, electronic media, and rhetoric with classes in American or foreign area politics to develop the critical and analytical knowledge by which to make sense of political communication. Political communication prepares students for the study of, or careers in, politics or political journalism. The concentration consists of a total of 24 credit hours. Students are to choose whether to pursue the path in U.S. domestic politics or the path in foreign politics and international relations.

Courses required for the U.S. path: CO 225 and PO 101.

Courses required for the foreign politics and IR path: CO 225, and PO 102 or 103.

For either path, students are to choose three of the following CO courses with at least one at the 400-level: 319, 341, 346, 380, 441, 449, 467.

For the U.S. path, students choose three from: PO 301, 302, 309, 317, 319, 410.

For the foreign politics and IR path, students are to choose three of the following: PO 311, 326, 330, 332, 334, 336, 345, 346, 356, 458. **Coordinators:** Dr. Douglas Bruce, The Tim Russert Department of Communication and Theatre Arts; Drs. Dwight Hahn and Elizabeth Stiles, Department of Political Science.

Public Administration and Policy Studies—This program is open to political science and economics majors. It has three objectives: 1) to provide a preprofessional education in social sciences within a liberal arts curriculum; 2) to offer theoretical and analytical preparation for advanced training in public management, policy analysis, and applied social science; and 3) to equip students with knowledge and skills to serve in a variety of positions at the local, state, and federal levels of public service.

The concentration consists of 36 credits. Political Studies—required: PO 101, 204, 302, 312. Analytical Studies—Political Science majors: EC 201, 202, 312; PO 300. Economics majors: EC 201, 202, 208, 312. Substantive Focus Studies (two courses): PO 305, 309, 310, 316, 318, 337, 361; EC 331, 332. Internship (optional): PO 390 (3 credit hours, an internship in government). **Coordinators:** Drs. Colin Swearingen and Dean Birch, Department of Political Science.



Centers, Institutes, and Programs

Centers

The Cardinal Suenens Center

The Cardinal Suenens Center honors the life and work of Leon Joseph Cardinal Suenens (1904-1996), Archbishop of Malines-Brussels and Primate of Belgium. The Center has the following goals: to study the achievements and heritage of Vatican Council II; to be attentive especially to the reception of the as yet unachieved goals of the council; and, through symposia, publications, and funded scholarly research, to increase understanding and pursuit of those goals; to further the ecumenical advances of the council through respectful dialogue; to bridge conversation between Church leadership and the theological community; and to intersect the pastoral goals of Vatican Council II with those of the culture in response to the Church's present call for "the evangelization of the culture." Given the council's recommendation that we be attentive to "the signs of the times," the Center is actively involved in pursuing interfaith dialogue. Every other year, the Cardinal Suenens Center designates a recipient for the Living Water Award. Past honorees: 1996—Mother Teresa and Cardinal Joseph Bernardin; 1998—Cardinal Godfried Danneels; 2000—Cardinal Franz Koenig; 2002—Cardinal Roberto Tucci, S.J.; 2005—Helen Prejean, C.S.J.; 2006—Giuseppe Alberigo; 2010—Rev. Timothy Radcliffe, O.P. Each year an invitation is extended to a prominent person to deliver the Margaret F. Grace lecture on "Where do I find hope?" The distinguished list includes: Godfried Cardinal Danneels; Reverend Ronald Rolheiser, O.M.I.; Sister Elizabeth Johnson, C.S.J.; Sister Helen Prejean, C.S.J.; Reverend Richard Rohr, O.F.M.; Archbishop Michael Fitzgerald, M.Afr.; William Cardinal Leveda; Rev. Bryan Hehir; Rev. Michael Himes; Rev. Howard Gray, S.J.; Rev. Timothy Radcliffe, O.P. **Director:** Dr. Doris Donnelly, Department of Theology and Religious Studies.

The Center for Faculty Development

The Center for Faculty Development supports the University's mission by providing resources to foster the professional development of the faculty. The center works collaboratively with other campus organizations to sponsor programming and provide funding for initiatives supporting faculty involvement in curricular and pedagogic innovation within and across disciplines. The center also seeks to promote intellectual community and to provide networking opportunities for faculty. It plays an active role in providing leadership, coordination, and support for teaching and research in the belief that good teacher-scholars change lives. **Director:** Dr. Anne Kugler, Office of the Provost and Academic Vice President.

The Center for Global Education

The Center for Global Education is the office responsible for outgoing and incoming student and faculty exchanges. This includes study abroad and exchange programs, faculty exchanges, and short-term and semester-long faculty-led academic

Centers, Institutes, and Programs

programs abroad. The center advises students on international opportunities and scholarship funding sources, and manages students' applications and other paperwork. It provides pre-departure orientation for study abroad programs and opportunities for reflection upon students' return. It also works to ensure the safety of the John Carroll community while abroad, through advising, insurance programs, and monitoring world events

The center also supports incoming international students and faculty, issuing and maintaining visa paperwork for degree-seeking students as well as student, faculty, and researcher exchange visitors. It is responsible for ensuring that international students maintain their status under the terms of their visas and university policies, authorizes work permission on and-off campus, and orients new international students.

The center provides opportunities for international students to integrate into campus life and meet other international and domestic students, faculty, and staff. It also sponsors international-related events on campus, such as concerts and guest speakers. **Director:** Dr. Andreas Sobisch, Department of Political Science.

The Center for Mathematics and Science Education, Teaching and Technology (CMSETT)

The Center for Mathematics and Science Education, Teaching and Technology (CMSETT) was established at John Carroll University in 1999 with the mission to advance the quality of K-12 mathematics and science education in northeastern Ohio. This is accomplished through building upon successful initiatives of the University to improve mathematics and science instruction in local school districts and through collaboration with faculty and representatives of K-12 institutions, other higher education institutions, and other organizations in the region.

CMSETT provides professional development programs and workshops for mathematics and science educators based on the national vision for reform in science, mathematics, and technology education. The purpose of these programs is to improve content knowledge in the areas of science and mathematics and appropriate teaching strategies based on current research on human learning and effective practices. Courses may be taken for graduate credit.

A variety of professional development opportunities is offered to area mathematics and science teachers of grades K-12 each summer. In addition, specific programs are designed with individual districts to meet their needs for ongoing program improvement. **Director:** Linda Gojak.

The Center for Service and Social Action

The Center for Service and Social Action reflects the mission and commitment of John Carroll University in the formation of men and women who "excel in learning, leadership, and service." It seeks to educate for justice by offering opportunities for learning through service and advocacy by means of community-based learning, voluntary service activities for individuals and groups, and other events and programs grounded in the theory of social justice and the practice of social action.

The center connects the campus with the community through sustained partnerships that enable students to realize the Jesuit goal of developing well-educated men and women who understand what it means to stand in solidarity with the poor and marginalized, to engage in ongoing reflection, and to build a more humane and just society. **Director:** Dr. Margaret Finucane, Tim Russert Department of Communication and Theatre Arts.

Shepherd Higher Education Consortium on Poverty

The Shepherd Higher Education Consortium on Poverty prepares students through curricular and co-curricular experiences to work toward reducing poverty as they begin and progress through their professional lives. The consortium, to which John Carroll belongs, consists of approximately twenty universities and colleges dedicated to educating the next generation about poverty in this country and around the world. John Carroll students are selected to participate through a competitively reviewed application process for an eight-week, stipended summer internship with an urban or rural organization that addresses the needs of society's most vulnerable members. **Academic Director:** Dr. Margaret Finucane; **Internship Director:** Maryellen Callanan, Center for Service and Social Action.

Institutes

Ignatian Spirituality Institute

The Ignatian Spirituality Institute (ISI) offers an educational program for the training of spiritual directors in the tradition of the *Spiritual Exercises* of Ignatius Loyola. It is ideally suited to those interested in the ministry of spiritual direction and/or retreat work. More generally, the ISI offers adult Christians of any denomination theological and spiritual tools for deepening Christian life and ministry, whether in the home, parish, congregation, or workplace. Since the ISI is an affiliate program of the Department of Theology and Religious Studies, all of its courses are conducted at John Carroll University.

The ISI is a non-credit, non-degree certificate program running concurrently with the fall-spring academic calendar and designed around three areas of study: theology/scripture, spirituality, and psychology/communication skills. Year I is academically focused; classes meet twice a month in the evenings along with occasional weekend workshops. Year II is focused on the supervised practicum in spiritual direction.

Requirements for admission include a written spiritual autobiography, three letters of recommendation, a record of education and work history, and an interview with the ISI Admissions Committee. Generally it is expected that ISI candidates will have completed a college degree, several years of steady work, and a variety of life experiences. The admissions committee may make exceptions to these criteria.

Presently, the ISI is endowed by a generous grant from the F. J. O'Neill Charitable Corporation and by additional gifts from a variety of donors. For further information, contact the Ignatian Spirituality Institute office at 216-397-1599. **Director:** Dr. Joan Nuth, Department of Theology and Religious Studies.

Institute of Catholic Studies

Over the centuries the Catholic tradition has encountered many opportunities to formulate faith in the context of the intellectual and scientific climate of the age. The Institute of Catholic Studies examines this interaction through a variety of initiatives; an undergraduate interdisciplinary minor in Catholic Studies (see page 83); faculty development workshops and seminars; sponsorship of a public lecture series; and course development grants. These programs seek to highlight, within the history of ideas, the contribution of Catholic intellectuals and scholars from a variety of disciplines. The institute also promotes the investigation of the interaction between the Church and society. **Director:** Dr. Paul V. Murphy, Vice President for University Mission and Identity.

Robert M. Ginn Institute for Corporate Social Responsibility

Named in honor of the late Cleveland business executive and community leader, the Robert M. Ginn Institute builds upon the Cleveland business community's record of social achievement and community spirit to establish a continuing program and dialogue on issues of social consequence to business. Through student internships and programs, the Ginn Institute seeks to enhance understanding of critical social issues and to foster a cooperative spirit among corporations, nonprofit organizations, and communities. In 1996 the Boler School established the Michael J. Lavelle, S.J., Fellowship/Internship Program, which funds internships for John Carroll students in private, nonprofit organizations in the Greater Cleveland area. Lavelle scholarships are funded by the Ginn Institute.

Programs

Arrupe Scholars Program for Social Action

The Arrupe Scholars Program for Social Action provides a framework for students to integrate their curricular and co-curricular experiences related to service and social justice in a reflective manner. Fr. Pedro Arrupe, S.J., was integral in guiding the Jesuits toward the goal, not just inspiring faith among those they encountered, but inspiring a faith that does justice. Arrupe's commitment to justice was rooted in his love for his faith and for God. Jesuit institutions around the world subscribe to his precept "men and women for others."

Arrupe Scholars develop leadership for social change through completion of academic courses as well as engagement in service and advocacy. Arrupe Scholars receive a scholarship, are recognized at commencement, and their program participation is noted on their academic transcript. **Director:** Dr. Margaret Finucane, The Tim Russert Department of Communication and Theatre Arts, and Director, Center for Service and Social Action.

The Bishop Anthony M. Pilla Program in Italian-American Studies

Established with the support of the Northern Ohio Italian-Americans (NOIA) and a Boler Challenge Grant in 1997, the program is named for the Most Reverend Anthony M. Pilla, ninth Bishop Emeritus of the Diocese of Cleveland (M.A., JCU '67; D.H.I., Hon. JCU '81). Through its course offerings in the Department of Classical and Modern Languages and Cultures, the program promotes the study of Italian and Italian American literature, history, and culture. It emphasizes an understanding of the meaning of the Italian historical past, family, ties to one's heritage, hard work, success in the face of obstacles, and the role of the spiritual in one's life. This interdisciplinary undergraduate liberal arts program sponsors the Bishop Pilla Lecture Series, and supports the John Carroll University at Vatican City Study Abroad Program and the Bishop Pilla Summer Institute in Italy. **Director:** Dr. Santa Casciani, Department of Classical and Modern Languages and Cultures.

Program in Applied Ethics

The Program in Applied Ethics supports teaching, research, and community service in the area of applied ethics. Among its goals is increasing awareness of, and reflection on, contemporary ethical issues. By providing intellectual resources for understanding and wrestling with important social questions, the program fosters campus-wide conversations about moral issues. To this end, the program encourages an interdisciplinary approach to ethics that seeks to include all interested faculty, students, and other members of the University community. It sponsors a wide array of initiatives, such as campus visits by prominent figures in ethics, public lectures and conferences on ethical issues, and faculty and student development. The program also helps to fund faculty and student travel to conferences and course development grants. **Director:** Dr. Earl Spurgin, Department of Philosophy.



Preparation for Graduate and Professional Study

Graduate Study and College Teaching

The academic qualification for most positions in college teaching is possession of the master's or doctor's degree. Teacher certification is not required. The doctorate often is also the avenue to a career in research, education, or industry as well as to various executive responsibilities in management.

Usually the master's degree requires at least one year of full-time study beyond the bachelor's degree. The doctorate requires at least three additional years. Graduate study presupposes fundamental preparation in a special field as well as supplementary skills in foreign or computer language or statistics that should be acquired in the undergraduate program.

Students contemplating graduate study should become familiar with conventional procedures, the comparative merits of various institutions, and the availability of financial assistance. Faculties and graduate schools tend to have particular strengths in special fields, with corresponding prestige for their graduates. Fellowships, assistantships, and other types of appointments often are available to students who require financial assistance. Information is available at the University or public library, on the Internet, in graduate school bulletins, the annual *Directory of Graduate Programs* published by the Educational Testing Service, and the annual *Peterson's Guide to Graduate and Professional Programs*. Early in senior year students should contact selected graduate schools to obtain applications for admission, financial aid, and other information. Most graduate schools now have online applications.

Early and sustained consultation with John Carroll faculty will be most helpful in planning graduate study. Faculty may assist in submitting applications for admission to graduate study or graduate appointments. Credentials commonly must be submitted in the late fall and early spring, and selections are usually announced in mid-spring.

Undergraduate preparation generally requires a full major in the chosen field. Quality of achievement as evidenced by grades is an important index to probable success in graduate study. Undergraduate transcripts are required and examined by the graduate school for both admission and appointments. Another common expectation is good performance on an examination, which should be taken as early in the senior year as necessary to submit test scores by the date designated by each graduate school. Students must determine whether a particular graduate school requires the Graduate Record Examination General (Aptitude) Test or Subject (Advanced) Test or both. Other tests such as the GMAT or the Miller Analogies Test may also be required. Information about testing dates and locations may be obtained at the College of Arts and Sciences website: www.jcu.edu/graduate/future/exams.htm.

Students must take the initiative in seeking advice and obtaining application forms, meeting requirements, and enlisting recommendations. The dean and the

faculty of the major department, however, are ready to assist in any reasonable way to provide endorsements warranted by the student's ability and achievement.

Professional Programs

Professions such as law, medicine, dentistry, and engineering ordinarily have two phases of schooling: preprofessional and professional. John Carroll cooperates with the students' preprofessional schooling by offering programs of two, three, or four years' length. Although there is increasing preference within professions for candidates who have completed baccalaureate programs, students with exceptional academic records and personal development may enter some professional schools such as dentistry or optometry after two or three years of preprofessional education. Students are urged in most cases to pursue programs leading to a bachelor's degree.

Engineering Programs

John Carroll University has articulation agreements with Case Western Reserve University and with the University of Detroit Mercy that ensure students interested in pursuing an engineering degree a smooth transition to these schools. The Case School of Engineering offers degrees in biomedical, chemical, civil, computer, electrical, mechanics and aerospace, and systems control engineering, as well as in macromolecular science and material science. Students interested in the 3-2 binary program with Case Western Reserve University attend John Carroll for three years and then transfer to CWRU for two years; they receive both a B.S. from John Carroll and a B.S. in engineering from CWRU. The program is open to any student who completes the prerequisite courses (in calculus, physics, chemistry, computer science) and maintains an overall 3.0 GPA and a 3.0 GPA in science and mathematics courses.

The University of Detroit Mercy offers engineering degrees in architectural, civil, electrical (with an optional concentration in computer engineering), and mechanical engineering. Their engineering programs include a co-op component which provides students with work experience and allows them to earn a significant income. Under the engineering articulation agreement with UDM, students complete a two-year pre-engineering program at John Carroll and then transfer to UDM for two years of engineering. They receive a Bachelor of Engineering degree from UDM.

Another option is to complete a B.S. at John Carroll and then enter an engineering school for a master's degree in a particular field of engineering. Students who choose this option may start taking engineering courses while at John Carroll through the Northeast Ohio Commission on Higher Education Cross-Registration Program.

Students interested in the above programs should contact the Department of Chemistry or the Department of Physics as early as possible.

Health Professions

Students pursuing full four-year degree programs such as premedical, predental, or allied health program preparation normally earn the Bachelor of Science degree

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with a major in either biology, chemistry, or physics. Students are free to follow any degree program provided they complete the specific course prequirements for their intended healthcare professional program.

Students should familiarize themselves with the general admission requirements of the profession which they aspire to enter in addition to those specific to the schools of their choice. The director of the Pre-Health Professions Program is available for individual advising. In addition, meetings are usually held each year to provide information for each class level. Faculty advisors in the biological and physical sciences are also available to act in an education and advising capacity. Students are encouraged to avail themselves of these resources and to consult the Pre-Health Professions Program website (www.jcu.edu/prehealth) for more information.

The Health Professions Advisory committee is the University mechanism which provides letters of recommendation to medical, dental, and other healthcare professional schools that require or prefer recommendation letters from a committee rather than individual faculty members. The committee's letters are based on academic performance, individual and committee interviews, and factors such as integrity, industry, maturity, commitment to social responsibility, and judgment.

Post-baccalaureate students who have not received their undergraduate degree from John Carroll may use the Health Professions Advisory committee as the source of their letter of recommendation if they so choose. Normally such students should have completed 24 semester hours of course work at John Carroll, which may include the semester in which they interview before the committee.

Current admission practices of health professional schools suggest student qualifications considerably higher than the minimum C average required for graduation. Therefore, normally a letter of evaluation will be written to these schools only for applicants who have attained a minimum grade-point average of 3.0 overall and 3.0 in science courses (biology, chemistry, physics, and mathematics).

Medicine

The requirements of medical schools are summarized in *Admission Requirements of American Medical Colleges*, published annually by the Association of American Medical Colleges. A bachelor's degree is almost invariably required. Additional information can be found at the Association of American Medical Colleges website (www.aamc.org/students). Applicants for medical school must take the Medical College Admission Test. Since this test is usually given in late spring of the junior year, premedical students should have completed or be completing the basic requirements for medical school by that time. Those requirements are generally one year each of general chemistry, organic chemistry, physics, and biology, with labs, and one year of college-level math. They are usually fulfilled at John Carroll by taking CH 141-144 and 221-224; PH 125, 125L, 126, and 126L; BL 155-158; and MT 135-136 (MT 228 may be substituted for MT 136). Students taking the MCAT in the year 2015 or later should also complete one semester each of biochemistry, sociology, and psychology. The corresponding courses are CH 431, SC 101, and PS 101, respectively. Genetics (BL 213) is also encouraged.

John Carroll participates in the MEDStart Program for pre-medical students, an early-decision program for first-semester juniors offered by the University of Toledo College of Medicine. John Carroll University also has an affiliation with Lake Erie College of Osteopathic Medicine (LECOM). This agreement reserves ten seats for John Carroll students who are interested in medical school. Students can obtain seats through one of the following three routes: 1) Dual admission applicants are accepted to LECOM in conjunction with their John Carroll University acceptance. 2) Early admission applicants apply during their sophomore year. 3) Traditional students apply in the summer between their junior and senior years. Details for these programs are available on the John Carroll website (www.jcu.edu/prehealth) or from the director of the Pre-Health Professions Program.

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In addition to medicine and dentistry, a number of other careers are available in healthcare. Students are encouraged to explore such fields as anesthesiology assistant, podiatry, physical therapy, occupational therapy, nursing, optometry, veterinary medicine, physician assistant, and pharmacy. Most of these occupations require a baccalaureate degree with additional education at the graduate level. Information and advising are available from the coordinator of Pre-Health Professions Studies.

John Carroll participates in two programs of interest to pre-nursing students, the Case Western Reserve University Graduate Entry Nursing Program and the Ursuline College Accelerated Bachelor of Science in Nursing Program. More information on these programs can be found on pages 143-146 in the Biology section of this bulletin or from the director of the Pre-Health Professions Programs.

John Carroll also offers a Premedical Post-Baccalaureate Program designed for students who want to fulfill the requirements for admission to medical school, dental school, and other health professional schools. This program is appropriate for students 1) who possess a bachelor's degree in a discipline other than biology or chemistry and wish to pursue a health professions career, 2) who majored in chemistry or biology but struggled with the course work as a traditional undergraduate, or 3) who have not been enrolled in courses in these disciplines for over five years. More details are available in the *Graduate Studies Bulletin* and at the website http://sites.jcu.edu/graduatestudies.

Dentistry

The Council on Dental Education of the American Dental Association lists the minimum educational requirements for admission to a dental school as follows: (1) Students must successfully complete two full years of study in an accredited liberal arts college. (2) In most states, the basic requirements of predental education are the same as those of premedical education noted above. Those requirements are generally one year each of general chemistry, organic chemistry, physics, biology, and math. They are usually fulfilled at John Carroll by taking CH 141-144 and 221-224; PH 125, 125L, 126, 126L; BL 155-158; and MT 135-136 (MT 228 may be substituted for MT 136). (3) Students must complete a minimum of 64 credit hours from liberal or general education courses, such as English, communications, behavioral sciences, philosophy,

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and theology and religious studies, which give breadth to their educational background. Applicants must take the Dental Aptitude Test. This test is usually administered in late spring of the junior year, by which time the basic predental requirements should be completed. Admission to schools of dentistry with only two or three years of undergraduate education is the exception rather than the rule.

John Carroll University has an affiliation agreement with Lake Erie College of Osteopathic Medicine's School of Dental Medicine in Bradenton, Florida, whereby five seats are reserved for qualified John Carroll students. More information is available through John Carroll's website (www.jcu.edu/prehealth) or from the director of the Pre-Health Professions Program.

Pharmacy

A pre-pharmacy advisor is available to assist students interested in applying to pharmacy graduate programs. For further information, please see Dr. David Mascotti, Department of Chemistry (dmascotti@jcu.edu). He can help guide curriculum choices, graduate program selections, and career opportunities in pharmacy.

John Carroll University has an affiliation agreement with Lake Erie College of Osteopathic Medicine's School of Pharmacy in Erie, Pennsylvania, and in Bradenton, Florida, whereby five seats are reserved for qualified John Carroll students. More information is available through John Carroll's website (www.juc.edu/prehealth) or from the director of the Pre-Health Professions Program.

Most pre-pharmacy students will follow a course of study that begins with fundamentals of chemistry and biology. Most graduate programs also require students to take the Pharmacy College Admission Test (PCAT). Admission requirements differ for various graduate programs; therefore, specific advanced courses will be determined based on the graduate program to which the student intends to apply. These programs are very competitive and rigorous in nature, and thus require a high academic standing and PCAT score for consideration.

Law

A pre-law advisor is available to students interested in pursuing the study of law upon graduation. For further information, please see Dr. Elizabeth Swenson, Department of Psychology (swenson@jcu.edu).

Any major can be suitable preparation for a career in law, especially when combined with carefully chosen courses outside the major field. Students interested in law school are especially urged to consider double majors, a minor, or a concentration that complements the major field of study.

A broad background of knowledge, which is obtained through the University Core Curriculum in the Liberal Arts, plus a major in a specific field are required for the study of law. In addition, certain skills are important in learning and practicing law. These skills include the ability to speak and write effectively, to organize and absorb large amounts of information, to read carefully and critically, to analyze and evaluate

complex issues, and to deal with problems creatively. Also important is knowledge of the social, political, and economic structure of society and an understanding of the human values underlying this structure.

The pre-law advisor also can give advice on admission to law schools, the choice of a career in the legal profession, and the construction and content of a personal statement. In addition to the undergraduate degree, law schools require students to take the Law School Admission Test (LSAT) and to apply through the Credential Assembly Service (CAS). Forms for both of these are available at www.LSAC.org.

Admission to law school is based on high academic standing, a correspondingly high LSAT score, and recommendations from faculty and others familiar with the applicant's character, academic preparation, and aptitude for legal study. Extracurricular activities, work experience, and special achievements also play a role.

Ohio CPA Certificate

Certified public accountants should have a broad background of both liberal and professional education. The experience of Boler School alumni indicates that the major in accountancy provides excellent preparation for the Ohio CPA examination.

The certificate is granted by the State Board of Accountancy in accordance with the Ohio Revised Code. The current educational requirement for the CPA certificate is graduation with a baccalaureate or higher degree that includes successful completion of 150 semester hours of college-level credit or the satisfaction of alternate prequalification options. In addition to 30 hours of accountancy, candidates must complete course work in such areas as ethics, business communications, economics, finance, marketing, quantitative applications, and business law. Students should discuss the available options with a member of the Department of Accountancy.

In addition to this educational requirement, candidates for the CPA certificate must (a) pass a written examination in accounting, auditing, and in other related subjects; and (b) have public accounting experiences satisfactory to the board.

Students who wish to prepare for CPA certificates awarded by states other than Ohio should discuss academic programs with faculty in the accountancy department.

Teacher Education

Students who seek to obtain a teaching license after graduating with a baccalaureate degree will find that many colleges and universities, including John Carroll University, offer teacher licensure programs at the graduate level either as post-baccalaureate licensure-only programs or as Masters of Education licensure programs. Four licenses are available in the state of Ohio: Early Childhood, Middle Childhood, Adolescent Young Adult, and Multi-Age. To earn these licenses, students take a professional education sequence of courses which includes a student teaching experience. For the Middle Childhood, Adolescent Young Adult, and Multi-Age licenses, there may also be additional course work in the teaching fields depending on the baccalaureate degree. (See description of requirements in this *Bulletin*, page 194.)

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John Carroll offers four graduate-level options for earning teacher licensure: the School-Based M.Ed. Program, the Professional Teacher/Initial Licensure Program, the Woodrow Wilson Ohio Teacher Fellowship Program, and the Post-baccalaureate Program. The School-Based Program is an eleven-month full-time accelerated program that results in a master's degree and licensure. The Professional Teacher program also results in a master's degree and licensure, and can be completed either on a full-time or part-time basis. The Post-baccalaureate program can be completed either on a full-time or part-time basis and results only in a teaching license. The Woodrow Wilson Teaching Fellowship Program is designed to attract talented and committed individuals with backgrounds in the STEM fields—science, technology, engineering, and mathematics—into teaching in high-need secondary schools. This one-year program offers prospective teachers rigorous disciplinary and pedagogical preparation with extensive clinical experience resulting in a master's degree and teacher licensure. Participants receive a \$30,000 fellowship.

Graduate programs are also offered in the fields of school counseling, school psychology, and clinical mental health counseling. These programs lead to a master's degree and licensure. All of John Carroll University's licensure programs are accredited by NCATE and CACREP and conform to current Ohio licensure standards.

The detailed organization of the graduate licensure programs and information on licensure requirements can be found in the *Graduate Studies Bulletin* under the Department of Education and Allied Studies and Counselor Education.

Theology and Ministry Programs

The John Carroll University undergraduate major in Theology and Religious Studies prepares students for advanced studies in theology and religion and for careers in various forms of non-ordained ministry, including work in social service agencies, parish youth ministry, and high school teaching of theology. It also can serve as preparation for Catholic major seminary programs and programs of ministerial formation in other religious denominations.

John Carroll also houses the minor seminary program for the Cleveland diocese, the Borromeo Seminary Institute (see page 152). It prepares students for entrance into a major seminary program of priestly formation in the Roman Catholic Church.



Graduate Studies at John Carroll

The Boler School of Business and the College of Arts and Sciences offer advanced study in programs leading to master's degrees in the arts, sciences, communications, clinical mental health counseling, business, and education. The *Graduate Studies Bulletin* contains information on programs, costs, and admission requirements and is available online at www.jcu.edu/graduate/bulletin.

Degrees

Degrees conferred are: Educational Specialist (Ed.S.) in school psychology; Master of Arts (M.A.) in biology, communications management, clinical mental health counseling, education, English, history, humanities, mathematics, nonprofit administration, and theology and religious studies; Master of Science (M.S.) in accountancy, biology, and mathematics; Master of Business Administration (M.B.A.); and Master of Education (M.Ed.) in the areas of school counseling, school psychology, initial teacher licensure, and professional teacher. In addition to these degrees, certificate programs are also offered at the graduate level. The Boler School of Business offers a Certificate in Graduate Business Studies; the College of Arts and Sciences offers a Certificate of Nonprofit Management, Certificate of Advanced Studies in Theology and Religious Studies, Certificate in Pre-Medical Studies, and a Certificate of Advanced Studies in Assessment, Research and Measurement. The Department of Education and Allied Studies has approved state endorsement programs for teachers holding valid teaching licenses in the following areas: Reading, Early Childhood Generalist, Middle Childhood (language arts) Generalist, and Teacher Leader.

Admission

Applicants whose undergraduate record is predictive of success and who have the undergraduate requirements in the field they wish to pursue may be admitted as either matriculated or non-matriculated students.

To qualify for unconditional acceptance as matriculated students, applicants must hold, minimally, a baccalaureate degree from an accredited college, and a 2.5 cumulative grade-point average (based on a four-point system). Some programs may require a higher average. Students should consult the chair of the department in which they plan to do graduate work about additional admission requirements, program requirements, the planning of a course of study, and any program prerequisites. Departments may have degree requirements that are not listed in the *Graduate Studies Bulletin*.

John Carroll University seniors who have nearly completed the requirements for the bachelor's degree, who wish to take graduate-level courses, and who otherwise qualify may be admitted to graduate studies. The application must have the written approval of the appropriate undergraduate dean and must be submitted to the appropriate office of Graduate Studies at least two weeks prior to the date of registration.

Graduate/Athletic Assistantships

Graduate and athletic assistantships are available on a competitive basis in certain academic departments, non-academic departments, and the athletic department. The application deadline is March 1 for assistantships to be granted the following academic year. Detailed information on specific positions and application materials is available online at www.jcu.edu/graduate/future/assistantships.htm. Students may also contact department chairs or program coordinators regarding specific positions.



Academic Policies and Procedures

Enrollment and Course Load

Orientation

All full-time freshmen are required to take part in the New Student Orientation program. There are a number of orientation sessions during the summer and a final session just before the beginning of the fall semester. Full-time transfer students are also required to take part in a one-day orientation program; usually one session is held in June, one just before the beginning of the fall semester, and one in January for all new students entering the University for the spring semester. During the orientation sessions new students are introduced to the University; meet John Carroll students, faculty, and administrators; take part in appropriate placement testing; receive academic advisement; and register for courses in the upcoming semester. Information on the New Student Orientation program is mailed to students in sufficient time to enable them to choose an appropriate session. Full-time freshmen and transfer students are not permitted to register for courses prior to the orientation sessions.

Academic Advisors

All students have, from the beginning of freshman year, an assigned faculty advisor whom they should consult regularly about curriculum planning, course registration, and other academic decisions. Freshmen and sophomores should meet at least twice a semester with their faculty advisor to discuss academic planning and scheduling. Students declare their major program in their sophomore year. Departments will communicate to a student whether s/he is accepted, conditionally accepted, or not accepted to the major. Students who have been conditionally accepted will receive notification from the department about what they need to do to be accepted into the major. Students who are not accepted into the major will be directed to the assistant dean in the College of Arts and Sciences for consultation. Once students are accepted into a major program, they are then reassigned to a faculty advisor representing their major field of study. The dean's office of the College of Arts and Sciences coordinates advisor assignments for freshmen and sophomores as well as declaration procedures.

Although students are encouraged to make full use of the help that can be provided by academic advisors, they are expected to read and understand this *Bulletin* and to accept ultimate responsibility for the decisions they make. In no case will a degree requirement be waived or an exception granted because students plead ignorance of regulations or assert that they were not informed of them by the advisor or other authority.

Registration

Registration is carried out as part of the orientation program for freshmen and transfer students. For students currently attending John Carroll, early registration for the following semester begins approximately six weeks prior to the close of the fall and spring semesters.

Students may not register late (i.e., once the term has started) without permission from the appropriate academic dean, department chair, and instructor, and then only for serious reasons.

Registration Changes

Changes in enrollment or registration after initial registration for classes will be permitted only through the formal procedure prescribed by the Office of the Registrar. This applies to courses added, dropped, or changed. No courses may be added after the first week of class without the permission of the appropriate academic dean, department chair, and instructor.

Withdrawal from a course or change from credit to audit status may be made up to a date specified each semester by the college or school concerned. **Change of registration status will not be permitted during the last two weeks of class.** Freshmen should note the special provisions under "Withdrawal Regulations" (see page 110).

Student Course Loads

The normal course load for full-time students is 15 to 18 hours per week, but will vary with students' curriculum and scholarship record. Additional tuition is charged for a course load of more than 18 hours. Permission to carry excess hours (more than 18) requires, among other considerations, at least a 3.0 average in the previous semester, and permission of the academic dean. The minimum course load for full-time students is 12 hours. Students are responsible for judging the prudent ratio between credit-hour load, co-curricular activities, and outside employment in order to allow sufficient time for academic preparation. Academic responsibilities are expected to have first priority.

Students on academic probation are required to take a reduced schedule (normally 12 semester hours in full-time programs) while their probation lasts.

Certain programs requiring more than 128 semester hours (e.g., some programs in education or science) cannot be fulfilled in the usual eight semesters of full-time attendance. In entering these programs, students who plan to graduate in four years should count on fulfilling at least some course requirements by taking summer classes.

Credit

The unit of instruction is one hour a week for one 15-week semester, or its equivalent. This unit is called a credit hour and is the measure of University work. Academic credit is given only in accordance with the course descriptions as published in this *Bulletin*.

Pass/Fail Option

Students who have obtained sophomore status are permitted to take up to six courses on a Pass/Fail basis with the following restrictions:

Students may not register for more than one such P/F course per semester and may not use the P/F option for any course counted toward University Core requirements or in a major sequence, optional minor, or concentration. Business majors may not use the P/F option for any of the business core courses. **Students wishing to take courses on a P/F basis should discuss this action with their advisor and then obtain approval from the appropriate academic dean.**

Students wishing to take the P/F option or change from the P/F option to regular grading registration should so indicate at the time of final registration or no later than the end of the second week of class. Any change in registration must be made formally in Rodman Hall, Room 205/206, once an academic petition has been approved by the academic dean.

Students selecting the P/F option must earn a grade of C or higher to be eligible for the Pass grade. Courses completed with the Pass grade (designated "CR" for Credit) will not be included in the computation of the overall average. However, students who are registered for a course on the Pass/Fail basis but earn a grade of C- or lower will receive that grade, and it will be included in the computation of the overall average.

Students planning to enter graduate or professional schools are reminded that their admission may be jeopardized by a substantial amount of P/F course work.

Auditing

Students who audit a course do not receive credit toward graduation or a grade for the course, but the fact that they audited the course is recorded on the transcript. Such students must register for the course as "Audit"—after obtaining permission from the appropriate dean—and pay the same tuition as those who take the course for credit. Audit students are required to attend regularly. Failure to do so can result in a grade of AW.

Change of registration from credit to audit status must be carried out through the Office of the Registrar during the first **two** weeks of the semester. Freshmen (those with fewer than 25 hours completed) must have the approval of the academic advisor and the appropriate academic dean.

Audit for Dean's List Students

Dean's List students who have earned 60 semester hours of credit at John Carroll toward graduation, and who attain the distinction of being on the Dean's List in any given semester, may during the course-change week of the following semester, with permission from the appropriate academic dean, register to audit one course without a fee. Such students are required to attend their audited courses.

The Dean's List audit privilege may **not** be used for any course for which students have already registered.

Audit for Honors Program Students

All Honors Program students in good standing, who have completed at least 32 hours of course work at John Carroll University, are eligible to audit one course a semester without fee. Permission to audit a course must be obtained from the director of the Honors Program and the appropriate academic dean. Students are expected to meet the normal attendance requirements of the audited course. A student must register for the course to be audited during the first week of classes. Any earlier registration for the course to be audited invalidates the privilege of a free audit for that course.

Attendance Regulations

Students are expected to attend each and every scheduled meeting of all courses in which they are enrolled and to be present for the full class period. Absenteeism and tardiness, regardless of cause, are a threat to academic achievement. Recognizing that perfect attendance is not always possible, the University addresses the issue of absences as follows.

During the first week of a semester each instructor will provide, as part of the class syllabus, a written statement of the attendance policy for that class. The statement will contain an explanation of the consequences for absences as well as a policy on excused absences, and will be made available to each student properly enrolled in the class.

A student who is absent from a class is responsible, nevertheless, for all material covered during the class period. The student is also subject to appropriate consequences, as described by the instructor in the syllabus, if a test, quiz, recitation, homework assignment, or any other activity falls on the day of absence unless the student is granted an excused absence.

Excused Absences

A student who must miss a scheduled class meeting may be granted an excused absence at the discretion of the instructor. An excused absence entitles the student to make up any required activity that took place on the day of the absence. The student is still responsible, however, for any material covered during the class period that was missed. In case of illness, accidents, or other serious emergencies, the University presumes an excused absence would be granted.

Absences for Extracurricular Activities

Students who anticipate missing a class because of extracurricular events that are officially sponsored by the University have the responsibility to consult the syllabus for the class and identify any possible conflicts between required activities in the course and their extracurricular events. The student should obtain an official letter of participation from the coordinator of the activity and present it, along with a schedule of events for the semester, to the faculty member involved, identifying the dates of conflict, if possible, and requesting excused absences. If possible, faculty members are to grant excused absences for these students. However, students should be aware that last-minute requests are usually inappropriate. One week prior to each event the student will present to the faculty member a written request for an excused absence and, if an excused absence is allowed, make final arrangements for any work that will

be missed. If a faculty member finds it impossible to grant an excused absence, the student will be bound by the statements on attendance as described in the syllabus for the class

If an excused absence is not granted, an appeal is first made to the course instructor. If the matter remains unsettled, the faculty member and the chair will then attempt to resolve the difficulty with the student. If this does not lead to resolution, the academic dean normally will rule in the matter.

Policy and Procedure for Making Up Missed Final Examinations Policy

A student's failure to take a final examination at the regularly scheduled time is a serious matter.

A student may be allowed to make up a missed final examination only under extraordinary circumstances. Reasons such as misreading the examination schedule, having three examinations on the same day, oversleeping, and the like do not normally qualify. In the process of determining whether a request for taking a make-up examination should be allowed, the burden of proof is on the student. The instructor has the right to request verification of the excuse offered by the student.

Procedure

Step 1. If a student knows beforehand that s/he will be forced to miss taking a final examination at the regularly scheduled time, it is the student's responsibility **before the scheduled time of the examination** to inform the instructor and to request permission to reschedule the final examination.

If a student has missed the scheduled final examination because of extraordinary circumstances, the student is responsible for contacting the instructor by the end of the first working day after the day of the missed examination and requesting permission to take a make-up examination. If the instructor is unavailable when the student seeks her/him, the student is to contact the department office, which will contact the instructor. Leaving a note with a request to take a rescheduled final examination does not constitute permission to do so.

Step 2. The instructor, upon speaking to the student, will either deny the request or approve it and make arrangements with the student for a make-up examination to be taken, **normally before final grades are due**, at an agreed upon time and place.

If, after being contacted, the instructor will be unavailable to see the student, the instructor, with the department chair's permission, may delegate authority to the chair to make the decision and leave a make-up examination with the chair in case approval is given.

Step 3. A student who is denied permission to take a make-up examination may appeal immediately to the dean of the academic unit to which the instructor belongs. In any case, any appeal **must** be made by the end of the first working day after the day of the denial. The decision of the dean will be final.

Withdrawal Regulations

Students are considered in attendance until they have completed all prescribed withdrawal procedures, which are as formal as those for registration procedures. Tuition and laboratory fees are returnable only as indicated under "Refunds" (page 30).

Students must carry out proper withdrawal procedures personally in Rodman Hall, Room 205/206. Withdrawals during the first week of class leave no indication of the course on the student's transcript. For withdrawals between the 2nd and 12th week of a regular semester, a W appears on the transcript; this is the time of "withdrawal without prejudice." No withdrawals are permitted after the 12th week. Students withdrawing at any time without following proper procedures automatically receive a WF, which is considered a failing grade and is computed in the cumulative average. Final dates for the above periods are indicated in the academic calendar. Students who intend to completely withdraw from the University must notify the appropriate academic dean.

First-year students who wish to withdraw from a course, including the first week of classes, must first consult with their advisor. If the advisor is not available, students must consult with the appropriate academic dean of the College of Arts and Sciences before dropping. A first-year student must use a signed APR form to drop a course.

Academic Standing

Grading System

Students are evaluated by their retention of substantial information, insight regarding the significance of this information, ability to apply it to new situations, and ability to communicate the knowledge assimilated.

Quality Points and Averages

Candidates for a degree must attain not only a required **number** of credits but also a certain **standard** of excellence, which is determined according to quality points.

The number of quality points each grade is worth appears on the following page. The quality points earned in a course are the product of its credit hours times the quality points for the grade received in it. A grade of A earns quality points equal to 4.0 times the credit hours in the course; a grade of A-, quality points equal to 3.7 times the credit hours, and so on.

An average of at least 2.0 (C) in all courses taken for credit and at least 2.0 in the major is required for graduation. As a general rule, therefore, students must minimally accumulate quality points equal to twice the credit hours attempted at John Carroll. Quality points are computed to two decimal places. They are truncated, not rounded.

Academic standing at the end of any semester is determined by the ratio of the total number of quality points received to the total number of credit hours attempted in that semester. For example, students who earn 32 quality points while attempting

16 hours have an average of 2.00 (32÷16); students who earn 51.1 quality points while attempting 16 hours have a scholastic average of 3.19 (51.1÷16). Similarly, the cumulative average at John Carroll is determined by dividing all quality points earned by all credit hours attempted. A student who over four semesters has earned 192 quality points and attempted 67 hours has a cumulative average of 2.86 (192÷67).

The quality of work and the point system are indicated by the following grades:

A	Outstanding scholarship. 4 quality points per credit hour.			
A-	3.7 quality points per credit hour.			
B+	3.3 quality points per credit hour.			
В	Superior work. 3 quality points per credit hour.			
B-	2.7 quality points per credit hour.			
C+	2.3 quality points per credit hour.			
С	Average. 2 quality points per credit hour.			
C-	1.7 quality points per credit hour.			
D+	1.3 quality points per credit hour.			
D	Work of the lowest passing quality. 1 quality point per credit hour.			
F	Failure. If the subject is required, the course must be repeated. No credit hours, no quality points.			
FA	Failure because of excessive absences.			
HP	High Pass. Honors Program only.			
P	Pass. Honors Program only.			
W	Withdrawal through proper procedure.			
WF	Withdrawal without following proper procedure.			
AD	Audit			
AW	Auditor who fails to fulfill attendance requirements.			
SA	Satisfactory. This grade is used in noncredit courses.			
I	Incomplete. Work incomplete. Work is to be completed within one month following the last normal examination date of the semester in which the grade is incurred or the grade of I converts to F. An extension may be granted by the appropriate dean for very serious reasons, usually medical.			
X	Absent from final examination. Courses whose final exams are not completed within one month following the last scheduled examinations will convert to a grade of F.			
CR	Credit granted for master's thesis upon approval, student teaching, and other designated courses. Also indicates achievement of a grade of C or better in courses taken on the Pass/Fail basis.			

Courses in which the grades of F, FA, or WF have been assigned are counted among attempted courses in the computation of the overall average.

Student Classifications

For purposes of class standing, requirements, eligibility, and the like, degree-seeking undergraduate students are classified as follows: as **FRESHMEN** upon admission with proper high school credentials until the completion of 24 semester hours; as **SOPHOMORES** upon earning at least 25 semester hours and until the completion of 54 semester hours; as **JUNIORS** upon earning at least 55 semester hours and until the completion of up to 85 semester hours; as **SENIORS** upon earning more than 85 semester hours and until the completion of degree requirements.

Academic Honesty

Academic honesty, expected of every student, is essential to the process of education and to upholding high ethical standards. Cheating, including plagiarism, inappropriate use of technology, or any other kind of unethical or dishonest behavior, may subject the student to severe academic penalties, including dismissal.

All work submitted for evaluation in a course, including tests, term papers, and computer programs, must represent only the work of the student unless indicated otherwise.

Material taken from the work of others must be acknowledged. Materials submitted to fulfill requirements in one course may not be submitted in another course without prior approval of the instructor(s).

Concerns about the propriety of obtaining outside assistance and acknowledging sources should be addressed to the instructor of the course before the work commences and as necessary as the work proceeds.

Instructors should indicate specific penalties for academic dishonesty in their course syllabi. Penalties, appropriate to the severity of the infraction, may include zero for the assignment or failure in the course. In cases of academic dishonesty where the student chooses to withdraw from a course rather than receive a course grade of F, the grade of F instead of W may be assigned at the faculty member's discretion. In egregious cases and/or cases of repeat dishonesty, additional penalties may be determined by the dean, such as suspension or dismissal from the University. In a case of dismissal, Academic Dismissal will be noted on the transcript.

Any appeal by a student is to be made first to the instructor. If disputes of interpretation arise, the faculty member and chair will attempt to resolve the difficulty with the student. If this does not lead to a resolution, the appropriate associate academic dean normally will rule in the matter.

A written report of the incident by the instructor or department chair will be sent to the dean of the College of Arts and Sciences, who will keep a written record of the complaint when it is filed, and will forward a copy of the complaint to the appropriate associate dean's office at the time. The associate dean will place a copy of this record in the student's file and provide the student with a copy. A written record

of the complaint is kept for cases of repeat violations. The associate dean will review the case and determine if, in light of other information and records, further disciplinary action is warranted

The student has the right to appeal the accusation of academic dishonesty if the student believes it to be in error. The Policy and Procedure for Appeal of a Charge of Academic Dishonesty (steps 1-5 below) will be followed if a student wishes to contest a finding of academic dishonesty.

Policy and Procedure for Appeal of a Charge of Academic Dishonesty

Policy

The instructor has both the professional competence and the jurisdiction to determine instances of academic dishonesty; the student has the right to appeal the charge when the student believes it to be in error. The only basis for an appeal is whether the charge has been determined fairly within the system described in the syllabus by the faculty member.

Every student has the right to know at the beginning of any semester how academic dishonesty will be handled. For this reason the instructor has the obligation to present this information to the student at the beginning of the semester as part of the syllabus. Once the semester begins, an instructor should not make substantial changes to the system and should inform the students of even minor changes. If an instructor does not provide such information, the student has the right to seek redress.

Procedure

- **Step 1.** The student who wishes to contest a charge of academic dishonesty should first make an effort to discuss the matter with the instructor and attempt to resolve the problem concerning the disputed charge. (If the instructor is away from the University during the period of the appeal, the student may proceed directly to the department chair.)
- **Step 2.** If there is no satisfactory resolution at this level and the student wishes to pursue the matter further, the student must initiate a formal appeal by the end of the sixth week after the student is notified of the charge. The appeal must be made in writing to the instructor and a copy sent to the department chair, who will then schedule a meeting with the student and the instructor. For appeals unresolved at the end of the semester the student will select between receiving the course grade calculated with the penalty or an incomplete (*I*) for the course.
- **Step 3.** If the department chair cannot resolve the dispute in a manner satisfactory to the parties concerned, the chair will notify the associate dean of the school in which the course is taught. The associate dean will then attempt to resolve the problem.

Step 4.

- a. If the associate dean judges that the appeal is without sufficient basis, the associate dean can so rule, and the case is closed.
- b. If the associate dean is in doubt or thinks it possible that the grade should be changed contrary to the wishes of the instructor, the appeal moves to a committee comprised of three faculty members from the University.
 - To form the appeals committee, the associate dean will request the Faculty Council to provide a list of the names of nine, randomly selected, faculty members. From this list, the associate dean, the instructor, and the student each will choose three to consider the matter. Faculty unanimously selected will sit on the appeals committee; if agreement on the three cannot be reached, the associate dean will fill any remaining spots on the committee from the names on the list.
- c. Both the instructor and the student will present their cases to the committee. (The appeals committee will make no effort to establish whether an instructor's academic honesty policy is academically sound; rather it will attempt to establish whether an instructor's practices and procedures were followed consistently, fairly, and accurately according to the standards set forth in the syllabus and other course directives.)
- d. The committee will decide by majority vote whether to recommend that the grade be changed and will provide the associate dean with a written explanation of its recommendation. The associate dean will make the final decision after carefully considering the recommendation of the committee. If the final decision is contrary to the recommendation of the committee, the associate dean should explain the reasons for the decision in writing to the committee.

Step 5. The associate dean will then notify the instructor, department chair, and student of the decision, ordinarily by the end of the semester during which the appeal arose

Policy and Procedure for Appeal of a Course Grade *Policy*

The instructor has both the professional competence and the jurisdiction to determine grades; the student has the right to appeal a course grade that the student believes to be in error. The only basis for an appeal is whether the grade has been determined fairly within the grading system adopted by the faculty member.

Thus every student has the right to know at the beginning of any semester how the final grade for any particular course will be determined. This means knowing what percentage of the final grade the assignments (tests, quizzes, papers, class participation, etc.) will comprise.

For this reason the instructor has the obligation to present this information to the student at the beginning of the semester as part of the syllabus. Once the semester begins, an instructor should not make substantial changes in the grading system and should inform the students of even minor changes. If an instructor does not provide such information, the student has the right to seek redress.

Procedure

- **Step 1.** The student who wishes to contest a course grade should first make an effort to discuss the matter with the instructor and attempt to resolve the problem concerning the disputed grade. (If the instructor is away from the University during the period of the grade appeal, the student may proceed directly to the department chair.)
- **Step 2.** If there is no satisfactory resolution at this level and the student wishes to pursue the matter further, the student must initiate a formal grade appeal within a specific time period. (A disputed course grade from the fall semester must be appealed by the end of the sixth week of the spring semester. A disputed course grade from the spring semester or one of the summer sessions must be appealed by the end of the sixth week of the fall semester.) The appeal must be made in writing to the instructor and a copy sent to the department chair, who will then schedule a meeting with the student and the instructor.
- **Step 3.** If the department chair cannot resolve the dispute in a manner satisfactory to the parties concerned, the chair will notify the associate dean of the school in which the course is taught. The associate dean will then attempt to resolve the problem.

Step 4.

- a. If the associate dean judges that the appeal is without sufficient basis, the associate dean can so rule, and the case is closed.
- b. If the associate dean is in doubt or thinks it possible that the grade should be changed contrary to the wishes of the instructor, the appeal moves to a committee comprised of three faculty members from the University.
 - To form the appeals committee, the associate dean will request the Faculty Council to provide a list of the names of nine, randomly selected, faculty members. From this list, the associate dean, the instructor, and the student each will choose three to consider the matter. Faculty unanimously selected will sit on the appeals committee; if agreement on the three cannot be reached, the associate dean will fill any remaining spots on the committee from the names on the list
- c. Both the instructor and the student will present their cases to the committee. (The appeals committee will make no effort to establish whether a grading system is academically sound; rather it will attempt to establish whether an instructor's grading practices and procedures were followed consistently, fairly, and accurately according to the standards set forth in the syllabus and other course directives.)

d. The committee will decide by majority vote whether to recommend that the grade be changed and will provide the associate dean with a written explanation of its recommendation. The associate dean will make the final decision after carefully considering the recommendation of the committee. If the final decision is contrary to the recommendation for the committee, the associate dean should explain the reasons for the decision in writing to the committee.

Step 5. The associate dean will then notify the instructor, the department chair, and the student of the decision, ordinarily by the end of the semester during which the appeal arose.

Academic Reports

Academic reports of final grades are available at the end of each semester. Reports are not to be represented as official transcripts. Authenticated transcripts will not be released until all financial obligations to the University have been fulfilled.

Mid-term grades are given to freshmen for all courses in which they are enrolled, but only grades of C- or lower are reported for other students at mid-term. None of these grades become part of the permanent record.

Students who wish their academic report released should apply online at http://www.jcu.edu/registrar/transcripts.htm, or by signed letter to the Office of the Registrar at least two weeks in advance of need. To protect students and alumni, no telephone requests for transcripts will be honored. The University reserves the right to make judgments regarding the release of grades to government agencies or others making bona fide requests for information.

Course Repeat Policy

Students may repeat only once a course in which they receive a C- or lower; the higher grade received will be counted in their cumulative GPA. The other grade will remain on the transcript but will not count toward the cumulative GPA, nor will it count for credit toward graduation. Repeated courses must be taken at John Carroll. Students must submit an online academic petition to their advisor and the dean.

Graduation Requirements

Students must apply for graduation through the dean's office of the college in which they major by the deadline announced in the University calendar.

Graduation requirements include general requirements, all Core requirements, and all requirements for the major. Successful completion of at least 128 semester credit hours, with a quality-point average of at least 2.0, is required for graduation. This minimum average must be met in the major and overall. In addition, the Boler School of Business requires a 2.0 average in the business courses. The College of Arts and Sciences requires students to meet with their major advisor to review the completion of their degree. An audit signed by the major advisor and department chair is required by the end of October for May graduation. The last 30 semester hours must be completed in residence at John Carroll University.

Summer Graduates Participating in the Spring Commencement Ceremony

The following criteria will apply for allowing students to participate in the commencement ceremonies prior to the completion of all degree requirements.

- 1. **Undergraduate students** must have no more than 9 remaining credit hours in order to complete their degree program. Two weeks prior to spring commencement, students must be registered for courses that will complete their degree requirements by the end of the summer. If the course(s) needed to graduate is (are) not offered at John Carroll University during the summer, arrangements must be completed which will ensure proper transfer to the student's degree program at John Carroll. Students planning to graduate in August should have completed an application by March 1 for the College of Arts and Sciences and by October 1 for the Boler School of Business.
- 2. Students cannot have more than a three-quality-point deficit in any of the various categories in which a 2.0 grade average is needed for graduation. (This includes overall grade-point average, average in the major, and, in the case of Boler School students, average in all business courses.) Quality points will be calculated after course work for the spring semester has been completed and prior to the graduation ceremony. Quality points are computed to two decimal places and are truncated, not rounded.
- 3. Undergraduate students participating in the May commencement ceremony who have not completed all degree requirements will have their honors listed in the commencement program according to their overall grade-point average as of the end of spring semester.
- 4. **Graduate students** who are not writing an essay or thesis must have no more than 9 remaining hours to complete their degree program. Graduate students who have not completed the essay or thesis (but who have completed **all** course requirements) must submit a petition signed by their academic advisor stating that the thesis or essay will be completed by the deadline set by the Graduate Studies Office for summer school graduation. Graduate students should apply for the May commencement ceremony by March 1.

Dean's List

Only students who are in good standing and have completed a minimum of 12 semester hours of regularly graded course work (i.e., exclusive of Pass/Fail course work) within a semester with a quality-point average of 3.50 or higher will be eligible for the Dean's List.

Graduation Honors

The quality-point system is used to determine graduation honors. To qualify for graduation honors, a student must complete at least 60 credit hours in graded courses on the undergraduate level, all taken at John Carroll. To merit the distinction *cum laude*, candidates must attain a quality-point average of 3.50; *magna cum laude*, 3.70; *summa cum laude*, 3.90. These honors are inscribed on the diploma. Quality points are computed to two decimal places and are truncated, not rounded.

Commencement

John Carroll University conducts formal commencement exercises each year in May. Attendance at these exercises is optional; those attending must wear academic cap and gown. Diplomas are also issued in January and August, but students are invited to march in commencement the following May.

Academic Warning

Students are placed on warning whenever their semester average drops below 2.0 while their cumulative average remains above this minimum, or when the cumulative average is above the levels for probation, but below 2.0. Such students receive notice of academic warning and may be excluded by their dean from certain extracurricular activities. Averages are computed to two decimal places and truncated, not rounded.

Academic Probation

Academic Probation is the status of any student whose cumulative average falls below these standards:

0-12	earned hours	1.75	25-47 earned hours	1.90
13-24	earned hours	1.80	after 48 earned hours	2.00

Probation is imposed by the appropriate dean at the end of any semester in which the cumulative average is below these standards and continues for at least one semester until the required average is earned. Students on probation are subject to the following restrictions:

- They may not register for a course load greater than they carried during the semester immediately preceding notice of probation. Normally registration is limited to 12-13 semester hours; in no case may a student on probation register for more than 15 semester hours.
- Student athletes are not permitted to travel with varsity teams for competition, though they may be on the bench in street clothes for home contests. If the student chooses to continue to practice with the team, a season of participation will be charged to their eligibility.
- They may not pledge a fraternity or sorority, or hold any elective or appointive office on campus.

Freshman Privilege

Freshman Privilege is intended to help students recover from choices related to their academic major that turned out not to match their real interests or talents. As a result, such students may have done poorly (D, F) in courses **required** by those intended programs. Yet they very often can be successful in a new and different major program.

NOTE: A petition for Freshman Privilege must be approved by the assistant dean of the College of Arts and Sciences and must be submitted before the student earns 40 credit hours

To improve their chances of success, these students may petition the assistant dean—using the online Academic Petition—for the privilege of having such courses excluded from the calculation of their overall Quality Point Average (QPA). If granted, this exclusion is made on the assumption that the student will no longer pursue a major program in the same area. Thus, for example, the student would normally change from pursuing a major in science to one in liberal arts or business, or from attempting a major in business to one in science or in liberal arts. The student's previous course work is then re-evaluated, omitting the pertinent deficiency grade or grades and credit (if the course was passed) from inclusion in the QPA. (Note, however, that repeating the course or courses for which the privilege may have been granted will nullify the privilege, and restore the deficiency grade or grades in the student's QPA.) Courses for which the privilege has been granted remain listed on the student's permanent record (transcript) with the designation FP.

In general, the following courses are not eligible for the Freshman Privilege: (1) those required for the completion of all undergraduate degrees, e.g., First-Year Seminar, CO 100, EN 103 or 111 or 114, EN 104, 112 or 116, courses in one of the languages, PL and TRS/RL courses required for completion of the University Core Curriculum; (2) those not required for the completion of any undergraduate degree, e.g., AR, CE, FA, MS, PE. Other courses normally taken for Core are also not eligible.

Dismissal

Students are subject to dismissal for academic deficiencies by the appropriate dean if they are placed on probation for two successive semesters or if their grades decline while on probation status in any semester, or if they fail more than one course in any semester. Students who have been academically dismissed may not apply for reinstatement until at least one full semester and one summer have elapsed. Students who have been academically dismissed twice may not apply for reinstatement. (For conditions of reinstatement, see page 22.)

Transfer of Credit

Transcripts

Students who wish transcripts of records in order to transfer to another school or for other purposes should apply online at http://www.jcu.edu/registrar/transcript.htm or by signed letter to the Office of the Registrar at least two weeks in advance of need. To protect students and alumni, **no telephone requests for transcripts will be honored.** Transcripts are issued only at the request of the student, and official transcripts are sent directly to the college or university to which transfer is desired. A fee of \$5 is required for each transcript. Transcripts are released only when all outstanding balances have been paid. Further information about the services provided by the Office of the Registrar can be found on pages 54-56 of this *Bulletin*.

Transfer within the University

Students who wish to transfer within the University from the College of Arts and Sciences to the Boler School of Business, or vice versa, should consult with the dean's office in both colleges.

Concurrent Enrollment and Transfer of Credit

On occasion it may be desirable or even become necessary for students to enroll as transient students at another institution. With the approval of the appropriate dean, students may assume such concurrent enrollment status at other accredited institutions. The following are situations for which deans will generally approve concurrent registration and transfer of credit:

1. Cross-registration

Full-time students with a 2.0 or better average may register for one course per semester at any of the participating colleges and universities in the Cleveland area. This is an enrichment program, and courses eligible for cross-registration are those normally not available at the home institution. Certain restrictions apply, and approval must be granted by the dean of the appropriate college, as well as the registrars at the home and host institutions.

2. Study Abroad

Students are encouraged to study abroad as part of their regular academic program. Students in any major can be accommodated on study abroad programs. Students may participate in semester-long, year-long, summer, or short-term (spring break or between semester) programs. Students work with their academic advisors to select course work abroad that meets requirements for their major(s), minor, and Core Curriculum. Students must submit transient petitions online to gain approval for course work taken abroad, which is approved by the chair of the relevant department. Students must secure approval for all course work *before* they begin their study abroad program. For programs that have been approved by the academic vice president, all courses taken abroad are converted to a letter grade by the Office of the Registrar, and are calculated in the student's grade point average (GPA). For programs from non-affiliated institutions, only the course credits will transfer; GPA will not be affected. Students must earn a grade of C or better for a course to transfer, and courses may not be taken on a Pass/Fail basis.

John Carroll University operates its own faculty-led semester-long programs at the Vatican City, in Madrid, Spain, and in London, England. John Carroll currently has study abroad and exchange agreements with universities in many different countries. Additionally, through John Carroll's membership in the International Student Exchange Program (SEP), students have the opportunity to enroll at over 340 institutions worldwide for a semester, year, or summer. For a complete current list of programs, consult the Center for Global Education's website at http://sites.jcu.edu/global. Students are able to apply their financial aid packages for most John Carroll programs but should check with the Office of Financial Aid as part of the application process.

Students may participate in programs that are not affiliated directly with John Carroll University through third-party providers or by directly enrolling at the foreign institution, but they must still submit a complete application through the Center for Global Education, be approved by the Center for Global Education, and follow the same procedures to ensure that their course work will transfer to John Carroll. Students wishing to study abroad during their final year must also gain approval from the appropriate academic dean's office to ensure that they will still graduate in a timely manner.

Students in the Boler School of Business studying International Business with Language and Culture are required to study abroad in a non-English-speaking country and to carry out an international internship.

3. Washington Internships

John Carroll University participates in two semester-long internship programs in Washington, D.C., with (1) the Washington Center and (2) the Washington Semester at American University. Twelve to sixteen credit hours may be completed and transferred to John Carroll. Interested students should contact Dr. Andreas Sobisch (Center for Global Education) for the Washington Center and Dr. Elizabeth Stiles (Department of Political Science) for the Washington Semester.

4. Courses at other accredited institutions

John Carroll students who wish to take courses at another institution will ordinarily first consult with their advisors. Then they must obtain written permission of the appropriate dean before enrolling elsewhere. Course descriptions should be provided. For divisional Core and/or special designations, syllabi may be required. The permission, if given, will specify the terms under which credit will be transferred. The student must request that a transcript be sent to the registrar at John Carroll. A grade of C or better is required for transfer of credit. In such cases, only the credits are transferred; the grades received do not affect the student's quality-point average at John Carroll.

Students who enter John Carroll from Fall 2012 onward are subject to a limit on the number of transient credits that they can count for Core credits. These students can apply no more than 18 credits from other institutions toward the Core requirements after they have matriculated at John Carroll. No more than two special designations (D, S, R, W) may be transferred in to fulfill Core requirements.



Dr. Brenda A. Wirkus, Professor of Philosophy Recipient of the Distinguished Faculty Award for 2012

Department and Course Codes

The department and course codes for all units of the University are arranged in the single alphabetical list shown below. The course code is the registrar's official symbol for the subject and is used in records, reports, schedules, transcripts, and other references to a department or course.

Numbering indicates the level of the material covered in courses:

100-199 Introductory courses

Seniors should exercise due consideration before taking 100-level courses, since elementary courses generally appear inappropriate on a senior's transcript.

200-299 Lower-division courses

300-399 Upper-division courses open to undergraduate students

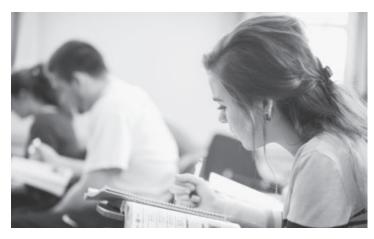
400-499 Advanced courses open to both undergraduate and graduate students

500-599 Graduate courses open only to graduate students and listed in the Graduate Studies Bulletin

When courses are cross-listed by more than one department or program, the full description of the course is found under both the department/program administering the course and the other department/program. At the time of registration, students who register for a cross-listed course must choose the department/program in which they desire credit for the course.

Hyphenated numbers – for example, 153-154 – are attached to courses that run for two semesters and indicate that the first course is prerequisite for the second course. Double numbers with a comma between them – for example, 161, 163 – are attached to courses that run for two semesters but may be taken in any sequence.

A number in parentheses following a course number or title refers to the number of the same course as it appeared in previous issues of the *Undergraduate Bulletin*. If the number is preceded by a departmental symbol, it indicates a cross-listed course.



Department and Course Codes

Department and Course Codes

Arabic	AB	History	HS
Accountancy	AC	Honors Program	HP
Art History and Humanities	AH	International Business with Language and Culture	IB
Arts and Sciences	AR	International Cultures	IC
Biology	BL	Italian	IT
Business Information Systems	BI	Japanese	JP
Business Logistics	LG	Latin	LT
Career Education	CE	Leadership	LP
Chemistry	СН	Management	MN
Chinese	CN	Marketing	MK
Classics	CL	Mathematics	MT
Communication and Theatre Arts	CO	Military Science	MS
Computer Science	CS	Modern Languages	ML
East Asian Studies	EA	Peace, Justice, and Human Rights	PJHR
Economics	EC	Philosophy	PL
Education and Allied Studies	ED	Physical Education	PE
Engineering Physics	EP	Physics	PH
English	EN	Political Science	PO
Entrepreneurship	ER	Psychology	PS
Finance	FN	Russian	RS
Fine Arts	FA	Slovak	SL
First-Year Seminar	FY SEM	Sociology and Criminology	SC
French	FR	Spanish	SP
German	GR	Theology and Religious Studies	TRS
Greek	GK	Women's and Gender Studies	WG

Department Chairs

ACCOUNTANCY

Gerald P. Weinstein, Ph.D.

ART HISTORY AND HUMANITIES

Peter Kvidera, Ph.D. (Interim)

BIOLOGY

Michael P. Martin, Ph.D.

CHEMISTRY

Michael P. Setter, Ph.D.

CLASSICAL AND MODERN LANGUAGES AND CULTURES

Martha Pereszlenyi-Pinter, Ph.D.

THE TIM RUSSERT DEPARTMENT OF COMMUNICATION AND THEATRE ARTS

Mary E. Beadle, Ph.D.

ECONOMICS AND FINANCE

Walter O. Simmons, Ph.D.

EDUCATION AND ALLIED STUDIES

Catherine A. Rosemary, Ph.D. (Interim)

ENGLISH

John S. McBratney, Ph.D.

HISTORY

Daniel P. Kilbride, Ph.D.

MANAGEMENT, MARKETING, AND LOGISTICS

Marc P. Lynn, Ph.D.

MATHEMATICS AND COMPUTER SCIENCE

Paul L. Shick, Ph.D.

MILITARY SCIENCE

Donald J. Hazelwood (LTC)

PHILOSOPHY

Dianna Taylor, Ph.D.

PHYSICS

Graciela Lacueva, Ph.D.

POLITICAL SCIENCE

Dwight R. Hahn, Ph.D.

PSYCHOLOGY

Sheri D. Young, Ph.D.

RELIGIOUS STUDIES

Sheila E. McGinn, Ph.D.

SOCIOLOGY AND CRIMINOLOGY

Phyllis Braudy Harris, Ph.D.



Accountancy (AC)

Professors: R. Bloom, G. P. Weinstein (Chair), A. L. Nagy, K. Schuele (Dean); Assistant Professors: M. Webinger, X. Liu; Executives-in-Residence: G. G. Goodrich, D. Dailey

The mission of the Department of Accountancy is to prepare undergraduate and graduate students for careers in professional accounting and for licensure as Certified Public Accountants. This preparation is realized through a broad-based, liberal arts education consistent with the values characteristic of Jesuit higher education and congruent with the missions of the University and the Boler School of Business to develop the student as a total person. The department further seeks to develop and provide quality service courses for other undergraduate and graduate areas of study within the University as well as service to other internal and external constituencies.

To achieve this mission, the Department of Accountancy mandates its faculty to:

- Demonstrate quality in the classroom through teaching that stresses rigor, discipline, method, and high standards.
- Make intellectual contributions; maintain currency with regard to professional practice; pursue professional interactions; and serve campus, community, professional, and academic organizations.
- Promote active faculty-student rapport through student advising, mentoring, and career guidance.
- Recognize ever-changing business conditions by exposing accounting students to aspects of global business, information technology, and the application of professional ethics/morals, as well as instilling technical competence and analytical skills.

Prospective accountancy majors must complete AC 201-202 with a minimum grade of C in AC 201 and 202 before being accepted as majors. Furthermore, it is strongly recommended that majors earn at least a C in EC 201-202 *and* EC 208.

A significant number of graduates begin their careers with public accounting firms while others obtain positions in industry, government, and not-for-profit organizations. Upon completion of the accountancy program, graduates may seek professional certification by taking the examinations to become, for example, a Certified Public Accountant (CPA), a Certified Management Accountant (CMA), a Certified Fraud Examiner (CFE), or a Certified Internal Auditor (CIA).

To qualify for the CPA certificate in virtually every state, including Ohio, the candidate must complete 150 semester hours of college-level credit or satisfy alternate prequalification options. Accordingly, students are encouraged to discuss the various options with a member of the Department of Accountancy. Students normally complete a master's degree in the fifth year of study.

Requirements

Major in Accountancy: 70 credit hours as described below.

Business Core: 43 credit hours, including MN 463.

Major Courses: 27 credit hours, including AC 303, 304, 312, 321, 341,

431, and two electives; MN 464.

Elective courses in accountancy (AC 405, 422, 461, 481, 483, 484, 498) enable majors to increase their expertise in several career paths.

Comprehensive Examination: Majors must pass a comprehensive examination before graduating from the University. Seniors should take this examination in the semester they intend to complete the undergraduate accountancy curriculum. Those who fail the first written comprehensive will normally be given a second examination. Students who fail both examinations will be required to show evidence of further study in accounting and will subsequently be retested.

Accounting, the "language of business," is fundamental to successful management as well as the basis for maintaining credible stewardship of any sizable organization. Accountancy majors are exposed to aspects of international accounting and the application of professional ethics throughout the curriculum. While the orientation is to instill technical competence and develop analytical skills in accounting, the department is aware that its majors must have a firm background in the liberal arts, sciences, business administration, and communications.

Courses and programs for graduate students appear in the *Graduate Studies Bulletin*.

201-202. ACCOUNTING PRINCIPLES 3 cr. each. Prerequisite: sophomore standing. Elements of accounting theory, covering revenues, expenses, assets, liabilities, and equity; account classification; analysis and recording of transactions; sources of accounting data; corporation accounting; theory of accounting valuations; preparation of financial statements; manufacturing cost flows and analysis.

290. THE ACCOUNTING PROCESS 0 cr. Prerequisite: AC 201. Students complete a practice set to demonstrate understanding of the accounting cycle, including the journalization of transactions, use of ledger accounts, and preparation of financial statements. Pass/Fail.

303-304. INTERMEDIATE ACCOUNTING 3 cr. each. Prerequisites: for AC 303, minimum grade of C in AC 201 and 202, and AC 290 or equivalent; for AC 304, minimum grade of C in AC 303. Preparation and analysis of the income statement, the statement of comprehensive income, the balance sheet, and the statement of cash flows. Coverage of key issues in financial reporting, including differences between U. S. Generally Accepted Accounting Principles and International Financial Reporting Standards.

310. ACCOUNTING FOR FINANCE MAJORS 3 cr. Prerequisite: AC 202. Finance majors may take this course or the AC 303-304 sequence to fulfill accounting requirements. Advanced problems of financial reporting by corporations, including the conceptual framework of financial reporting; the establishment of reporting standards; techniques of data accumulation and preparation of financial statements; applications of accounting principles.

- **312. COST ANALYSIS AND BUDGETARY CONTROL 3 cr.** Prerequisite: minimum grade of C in AC 303. Difference between managerial and financial accounting; cost terminology and behavior; ethical and behavioral considerations for the management accountant; analysis and technology to support costing methods for different types of manufacturing processes; budgets for planning and control of operations; cost and profit analysis for decision making.
- **321. FEDERAL TAXES I 3 cr.** Prerequisite: minimum grade of C in AC 303. Theory of the income tax. Historical review of tax development, effect of statute regulations and the courts; determination of the elements of taxable income and computation of tax and tax credits for individuals. Emphasis on theory of taxation; preparation of returns used to illustrate theory.
- **341. ACCOUNTING INFORMATION SYSTEMS 3 cr.** Prerequisites: BI 200 and minimum grade of C in AC 303. Introduction to, analysis and understanding of the role of accounting information systems in business organizations; operation and evaluation of computerized accounting systems; internal control.
- **405. SEMINAR IN ACCOUNTING 3 cr.** Prerequisites: minimum grade of C in AC 304 and/ or as announced. Contemporary issues in accounting not covered in depth in other departmental courses. Specific topics, methods of presentation, and student requirements will be designated by the seminar leader.
- **422. FEDERAL TAXES II 3 cr.** Prerequisites: AC 321 and minimum grade of C in AC 304. Designed to acquaint students with significant tax issues as well as reporting requirements of taxpaying entities other than individuals, including corporations, partnerships, estates, and trusts. Also, reviews tax research techniques, corporate restructuring, and international operations. Recommended for students wishing to pursue CPA licensure.
- **431. AUDITING 3 cr.** Prerequisites: AC 341 and minimum grade of C in AC 304. Auditing standards, ethics, audit reports, accountants' legal liability, the effects of Sarbanes-Oxley and the PCAOB, changes from the ASB Clarity project, and other audit concepts and procedures. Major emphasis is on public accounting and financial auditing, but coverage is extended to the field of internal auditing and operational auditing.
- **461. COMPARATIVE ACCOUNTING SYSTEMS 3 cr.** Prerequisite: Minimum grade of C in AC 304. Focus on cultural differences that determine particular patterns of accounting standards development in various countries. Additional emphasis on the use of accounting information to achieve effective global management of multinational organizations.
- **481. ADVANCED FINANCIAL ACCOUNTING 3 cr.** Prerequisite: minimum grade of C in AC 304. Advanced problems in accounting not covered in AC 304, including accounting for partnerships, business combinations, and foreign currency transactions. Recommended for students wishing to pursue CPA licensure.
- **483. SEMINAR IN CONTROLLERSHIP 3 cr.** Prerequisites: minimum grade of C in AC 304. Advanced topics in controllership not covered in other AC courses. Focus on the role of the controller as chief financial and managerial accounting officer; also, the impact of ethics.
- **484. ACCOUNTING THEORY AND POLICY 3 cr.** Prerequisite: minimum grade of C in AC 304. Review of accounting theory and its effects on standards development and policy decisions with respect to contemporary business problems and issues. Particular emphasis on current and evolving state of US GAAP and IFRS.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: Accountancy major with an overall GPA of 3.0 or higher; permission of chair and faculty member. Research project supervised by a member of the department willing to act as advisor. The student selects an aspect of accounting, establishes goals, and develops a plan of study that must be approved by the chair and filed with the dean's office. Consult the chair for guidelines established for such study.

Arabic (AB)

Lecturers: R. Islambouli, S. Khoury

The program in Arabic is offered by the Department of Classical and Modern Languages and Cultures. For general information about the department, see page 167.

The reasons for studying Arabic are many. The United Nations adopted Arabic as one of its six official languages in 1974. Today Arabic is the native language of over 200 million people as well as the liturgical language for over a billion Muslims throughout the world. It is also the official language of countries from North Africa to the Arabian Gulf (Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Oatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen). Events in the Middle East affect our daily lives, and, with the study of Arabic, students can gain unique insights into the cultural, religious, and political forces of this region. The Middle East is also the birthplace of civilization and the cradle of the three major monotheistic religions, home to some of the world's greatest archeological and religious sites, and the locus of two-thirds of the world's known oil reserves. Moreover, it is rich in culture and folkways. A knowledge of Arabic will greatly enhance the enjoyment of travel to that part of the world and the ability to work and interact effectively with its inhabitants. In addition, the study of Arabic can lead to careers in fields such as journalism, international finance, business, foreign service, political intelligence, law, and academe. The U.S. government considers Arabic a critical language, and many scholarships are available.

- **101. BEGINNING ARABIC I 3 cr.** Introduction to the sound and writing system of the Arabic language. Provides students with basic structural and lexical knowledge that will enable them to communicate orally and in writing in Arabic at the beginning level. Emphasis on real-life situations through structured activities and grammatical exercises, with an overview of Arabic customs and culture. Individual, pair, and group work, and computer-assisted instruction. (Fall)
- **102. BEGINNING ARABIC II 3 cr.** Prerequisite: AB 101 or equivalent. Continuation of AB 101. (Spring)
- **201. INTERMEDIATE ARABIC I 3 cr.** Prerequisite: AB 102 or equivalent. Builds on the structural and lexical base provided in AB 101-102 to move students to an intermediate level in listening, speaking, and writing. Individual, pair, and group work, and computer-assisted instruction. (Fall)
- **202. INTERMEDIATE ARABIC II 3 cr.** Prerequisite: AB 201 or equivalent. Continuation of AB 201. (Spring)
- **301-302. ADVANCED ARABIC 3 cr.** Prerequisite: AB 202 or equivalent; AB 301 or equivalent Prerequisite for AB 302. Advanced study of the four language skills for communication in a cultural context; expanding of vocabulary, idiomatic usage, and grammar. (Fall 301, Spring 302)

Art History and Humanities (AH)

Associate Professors: L. A. Koch, L. S. Curtis, G. B. Guest; Assistant Professor: B. Liu

The Department of Art History and Humanities offers courses devoted to the history and theory of art, a key component in any liberal arts education. Art history explores art as a record of human creativity in an intellectual context. The scholarly methods used increase perceptive ability, analytical skills, an understanding of various cultural traditions, and the facility to express oneself with clarity and precision—strengths essential to any major course of study and to any future career. Art history courses provide the basis for majors both in art history and humanities.

Students make use of the comprehensive collections of the Cleveland Museum of Art for their course work. Those enrolled in upper-division courses may have access to the extensive research facilities in the Ingalls Library, one of the largest art museum libraries in the country.

In addition, qualified majors have the opportunity to gain valuable experience by participating in internships at the Cleveland Museum of Art, where they may help prepare exhibits, do archival research on objects, assist with public lectures, conduct surveys, work with public relations, or work in visual resources. Internships are also available with area organizations such as the Museum of Contemporary Art, Sculpture Center, Cleveland Artists Foundation, and other art-related concerns.

In order to broaden their experience, students are encouraged to take advantage of the numerous study-abroad opportunities available to them. Up to six credit hours may count toward the major during a study-abroad program if approved in advance of enrollment.

Introduction to Art History (AH 101) is a Prerequisite for all courses offered by the department. After completing the introductory survey, students may take any of the upper-division (200-400) courses for which they feel prepared.

The department participates in the graduate program leading to the Master of Arts in humanities. Program requirements and course descriptions are published in the *Graduate Studies Bulletin*.

Art History Major

Art historians pursue careers in higher education, art museums, galleries, historical societies, publishing, conservation, art dealership and evaluation, and art criticism. The international character of the art history major also makes it highly recommended for those interested in foreign service and international business—areas of immense importance in today's world.

Art History Minor

The art history minor will allow the student to apply to most graduate programs in art history. It can also be used to complement or augment a major in other areas of the humanities, the sciences, or business and professional studies. Selection of courses should be made in consultation with the chair or a designated advisor in the department.

Major and Minor Requirements

Major in Art History: 33 credit hours, including the following courses: Greek and Roman (AH 317), Medieval (AH 318), Italian Renaissance (AH 303), 19th Century (AH 307), Modern (AH 309 or 310), Asian (AH 211, 312, 313, or 314); and one course in either Northern Renaissance (AH 301) or Baroque (AH 304). At least one course must be at the 400 level.

Language: A reading knowledge of French, German, or an approved substitute is required for the major. This knowledge will enable students to do advanced research in the field of art history and to pursue graduate study in the future if desired. Language proficiency may be demonstrated by: a) completion of the intermediate level of the language, or b) placement into the third year of the language by examination.

Minor in Art History: 18 credit hours. Students may choose courses that provide a general overview of the field or focus on an area of special interest. *N.B.: Art History minors pursuing the departmental major in Humanities may count all Art History courses taken toward the Art History minor.*

The Humanities Major and Minor are described on pages 250-251.

Note: AH 101 is a prerequisite for all other AH courses.

101. INTRODUCTION TO ART HISTORY 3 cr. Introduction to world art. Major works of painting, sculpture, and architecture of the Ancient, Medieval, Renaissance, Baroque, and Modern periods, as well as Asian and African art, including discussion of historical and intellectual contexts. A *Prerequisite* course for all others that provides a firm foundation for further study and familiarity with the methodology of art history.

110. INTRODUCTION TO 2-D DESIGN 3 cr. The basic studio foundation course which studies elements and principles of two-dimensional design and color theory. The fundamental principles of design (balance, unity, repetition, rhythm, variety, and emphasis) related to the organization and manipulation of the basic elements of line, shape, texture, value, color, and space. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.

199. TOPICS IN ART HISTORY 3 cr. Various subjects related to the methods of art history; specific artists, styles, or themes not usually covered in the regular course offerings.

- **211. ART OF INDIA, CHINA, AND JAPAN 3 cr.** Architecture, sculpture, painting, and ceramics of India, China, and Japan, studied in the context of politics and religions (Hinduism, Buddhism, Taoism, Confucianism, and Shintoism) from ancient times to the modern world. No previous knowledge of Asian art or culture is assumed.
- **240. DRAWING I 3 cr.** Introduction to various drawing media and techniques. Studio practice. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.
- **242. PAINTING I 3 cr.** Introduction to the materials, techniques, and styles of painting. Studio practice. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.
- **248. INTRODUCTION TO GRAPHIC DESIGN 3 cr.** Introduction to the field of graphic design. Emphasis on the principles of visual communication, the use of images and letterforms as design elements, and the history of graphic design. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.
- **250. ART STUDIO 3 cr.** Prerequisite: AH 101 or permission of department chair. Intermediatelevel study of the materials, techniques, and styles of drawing or painting. Studio practice. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.
- **251. ADVANCED ART STUDIO 3 cr.** Prerequisite: AH 250 or permission of department chair. Continuation of the principles and practices begun in AH 250. Studio practice. For elective credit only; not applicable to the Core or the major or minor in Art History or Humanities.
- **299. PROBLEMS IN STUDIO ART 1-3 cr.** Aspects of studio art, such as drawing, painting, and/or sculpture, which change from semester to semester. No Prerequisite, although AH 101 is highly recommended.
- **301. NORTHERN RENAISSANCE ART 3 cr.** Painting, sculpture, and prints of northern Europe in the 15th and 16th centuries, with special attention to artists such as Jan van Eyck, Hieronymus Bosch, Albrecht Dürer, and Pieter Bruegel.
- **303. ITALIAN RENAISSANCE ART 3 cr.** Painting, sculpture, and architecture in Italy from the 14th through the 16th centuries, including masters such as Giotto, Masaccio, Donatello, Botticelli, Leonardo da Vinci, Michelangelo, Giovanni Bellini, and Titian. Influence of Humanism and of shifting political and religious ideas.
- **304. BAROQUE ART 3 cr.** Painting, sculpture, prints and drawings, and architecture of 17th-century Europe from the Catholic Reformation through the reign of Louis XIV of France, including artists such as Caravaggio, Bernini, Rembrandt, Rubens, Velázquez, and Poussin.
- **307. NINETEENTH-CENTURY ART 3 cr.** European and U.S. painting, sculpture, and architecture from Neo-Classicism, Romanticism and Realism through Impressionism, including artists such as Goya, David, Delacroix, Blake, Courbet, Manet, Monet, and Cassatt.
- **308.** VISUAL ARTS IN THE UNITED STATES 3 cr. Survey of art in the U.S.—painting, sculpture, and architecture—from earlier colonial times to the contemporary. Emphasis on major contributors, including Copley, Cole, Homer, Eakins, Frank Lloyd Wright, The Eight, members of the Stieglitz and Arensberg circles, the Regionalists, Abstract Expressionists, and the Pop artists.

- **309. HISTORY OF MODERNART 3 cr.** Survey of the development of modernism in painting, sculpture, and architecture from 1880 to 1945, with a focus on major avant-garde movements such as Fauvism, Cubism, Expressionism, Dadaism, Surrealism, and the International Style.
- **310. CONTEMPORARY ART 3 cr.** Study of contemporary painting, sculpture, and architecture since 1945, with a focus on movements such as Abstract Expressionism, Pop Art, Minimalism, and developments ranging from Performance Art to Electronic Media.
- **311.** CINEMA OF THE AVANT-GARDE 3 cr. Survey of the cinema with special emphasis on visual elements and the relationship between the avant-garde in cinema and the other visual arts. Study of the development of motion pictures and their cultural contexts.
- **312. ART OF INDIA 3 cr.** Survey of the art and architecture of India from the Indus Valley civilization through the Moghul era to the modern period. Works of art will be examined within their cultural and religious contexts, including the Buddhist, Hindu, and Islamic traditions. The art of Southeast Asia may also be examined as an outgrowth, as well as a redefinition, of Indian culture
- **313. ART OF CHINA 3 cr.** Survey of the art and architecture of China from the Neolithic period to the 20th century, with emphasis on the cultural, aesthetic, and religious contexts of works of art. Topics include Shang bronzes, Han concepts of the afterlife, the impact of Buddhism, patronage and painting, and the landscape tradition.
- **314. ART OF JAPAN 3 cr.** Survey of the art, architecture, and decorative arts of Japan from the Neolithic period to the 20th century, with an emphasis on their cultural and religious contexts. Special emphasis on the stimulus of contacts with China and Korea in the evolution of the visual arts in Japan, including the impact of Buddhism.
- **315. AFRICAN AND OCEANIC ART 3 cr.** Art and culture of Africa and the Pacific Islands. Gold work, pottery, ivory, and ritual costume. No previous knowledge of the art or culture of these areas is assumed.
- **316. ART OF THE ANCIENT AMERICAS 3 cr.** Art, architecture, and culture of Mexico, Central and South America, and Ancient Native America. Pyramids, palaces, jades, pottery, and gold work. Rites of kingship, warfare, and blood sacrifice. No previous knowledge of the art or culture is assumed.
- **317. GREEK AND ROMAN ART 3 cr.** Marble and bronze sculpture, temple architecture, and vase and fresco painting of ancient Greece and Rome. Focus on the art of Periclean Athens, Hellenistic Greece, the Roman Republic, and the Empire.
- **318. MEDIEVAL ART 3 cr.** Art and architecture of Europe from the fall of the Roman Empire to the start of the Renaissance with emphasis on monumental church decoration, the secular art of the nobility, and the place of Jewish and Islamic art in medieval Europe.
- **319. GOTHIC ART 3 cr.** Cathedrals, sculpture, and painting of the late medieval period from the mid-12th century to the refined grace of the courtly art of the late 14th century, including stained glass, manuscripts, metalwork, ivories, and enamels.
- **320. ART OF THE EARLY CHRISTIAN WORLD 3 cr.** How artists and patrons developed a new visual language to communicate the beliefs of the emerging Christian religion within the context of the late Roman Empire.

- **322. ART AND WOMEN IN THE MIDDLE AGES 3 cr.** A consideration of the importance of women, both real and imagined, for understanding Medieval art. Topics include art commissioned by women, art intended for female viewers, and the iconography of women in the period. Special attention will be paid to the visual construction of gender.
- **323. ART AND RELIGION OF EAST ASIA 3 cr.** Examines major religious traditions and related art in China, Japan, and Korea. Painting, sculpture, and architecture from Daoism, Buddhism, Shinto, and Confucianism will be covered.
- **399. TOPICS IN ART HISTORY 3 cr.** Various subjects related to the methods of art history; specific artists, styles, or themes not usually covered in the regular course offerings.
- **425. IMPRESSIONISM 3 cr.** Major artists of the Impressionist movement from the radical style of Manet and the colorful palette of Monet, Renoir, and Degas, to the experimental compositions and techniques of Seurat, Cézanne, Van Gogh, and Gauguin.
- **430. THE AGE OF MICHELANGELO 3 cr.** Italian art and culture during a period dominated by the genius of Michelangelo (1490s-1560s). Topics to be studied in connection with Michelangelo and his influence include artists' competition with antiquity, Mannerism, art theory, Medici patronage, the Florentine Academy, and artists' biographies.
- **431. SIXTEENTH-CENTURY ART IN ROME: MANNERISM TO COUNTER-REFORMATION 3 cr.** Developments in painting, sculpture, and architecture in Rome during the 16th century, focusing on the transition from Mannerism to the Counter-Reformation. Considers major artists and works from the late period of Michelangelo to the arrival of Caravaggio in Rome in 1592, examining them in a broader cultural context from the impact of the Council of Trent to the patronage of popes, cardinals, and princes.
- **432. RENAISSANCE ROME: POPES AND CARDINALS AS PATRONS OF ART 3 cr.** Key monuments, ideas, and themes in papal and cardinalate patronage of art in Rome with emphasis on the 15th and 16th centuries. Topics include the Vatican and St. Peter's, the projects of Michelangelo and Raphael, the ideology of Rome as *Caput Mundi*, and the popes as temporal and spiritual rulers.
- **434.** THE SYMBOLIST MOVEMENT: ART AND CULTURE AT THE END OF THE NINETEENTH CENTURY 3 cr. Art of the Symbolist era, from Gustave Moreau and Odilon Redon to the Rosicrucians and the Nabis, in the context of late 19th-century culture. Relationships between the visual arts, literature, music, and other phenomena, such as the development of Freudian psychoanalysis and interests in occultism.
- **435.** MATISSE, PICASSO, AND DUCHAMP 3 cr. Study of three 20th-century modernists who, through their unique contributions and associations with Fauvism, Cubism, Dada, and Surrealism, have continued to influence developments in contemporary art. Includes individual achievements and interactions with the cultural context of their times.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: consent of instructor and department chair. Special projects in art history. Projects must be approved prior to registration. Senior art history majors and graduate humanities students only.
- **499. TOPICS IN ART HISTORY 3 cr.** Various subjects related to the methods of art history; specific artists, styles, or themes not usually covered in regular course offerings.

Arts and Sciences (AR), Fine Arts (FA), and First-Year Seminar (FY SEM)

These courses are designed to improve basic skills, to provide knowledge and direction essential to success in college and later life, and to offer enrichment opportunities in the arts. Besides those described below, other courses in the academic departments serve the same objective. Among them are courses in composition and rhetoric (EN 103-104, 111-112, 114-116), basic speech communication (CO 100), Word Power through the Classics (CL 210), and Introduction to Careers (CE 101).

Students may apply a maximum of four 1-credit AR courses, and a maximum of four 1-credit FA courses, toward graduation. Unless otherwise specified, no more than eight 1-credit courses from any combination of courses in Arts and Sciences (AR), Communication (CO) 140-175, Career Education (CE), Fine Arts (FA), International Cultures (IC) and/or Physical Education (PE) 120-174 may be applied toward graduation. Except for AR 291, credits from these courses may not be used to satisfy Core or major requirements.

First-Year Seminar (FY SEM)

Interim Chair of First-Year Seminar Committee: Dr. Peter Kvidera (EN)

FY SEM 3 cr. Introduction to the academic life which focuses on the perennial questions of human experience, utilizes an interdisciplinary approach to those questions, and promotes active learning among both students and faculty. This seminar encourages students to question and clarify their values as they simultaneously develop their oral, written, problem solving, and critical thinking skills. Faculty are drawn from all academic departments. This course is required of all first-year students.

Arts and Sciences (AR)

- **101. ADVISING COHORT 0 cr.** For all first-year students. Discussion of curricular and co-curricular options and academic planning to ensure a smooth transition to the University. Graded Satisfactory/Unsatisfactory.
- **112. APPLIED STRATEGIC LEARNING 1 cr.** Application of principles of cognitive learning theory. Strategic learning strategies used to improve academic performance.
- **120.** PURPOSE AND PLACE: EXPLORING CAMPUS, COMMUNITY, AND SELF 1 cr. Designed to help first-year students with the transition to college and to promote their engagement in all facets of their educational experience.
- **121. SURVEY OF HEALTH PROFESSIONS 0-1 cr.** Introduction to the many career options available in healthcare. Meets once weekly and includes speakers representing various healthcare professions.

- **122. INTERNSHIP IN MEDICAL-RELATED FIELDS 3 cr.** A nine-week internship that provides students with the opportunity to work and learn alongside experienced medical professionals at the Cleveland Clinic and its facilities in areas such as nursing, pharmacy, radiology, respiratory therapy, and medical technology. Students who have an interest in a medical field receive individually structured, full-time learning experiences and research opportunities during the summer. Participants are required to work Monday through Friday, forty hours per week for each of the nine weeks of the program.
- **140. PERSPECTIVES ON EFFECTIVE LEADERSHIP 1 cr.** Prerequisite: participation in the Leadership Scholars Program or permission of chair. Establishes a framework for understanding leaders and leader behavior. In particular, the course explores issues relevant to the psychology of leadership and increases student awareness of the characteristics, attributes, values, communication styles, and problem-solving skills that make effective leadership possible. Students will also evaluate and/or apply leadership concepts from a student and professional perspective.
- **144.** WE THE PEOPLE FIRST-YEAR SERVICE LEARNING PRACTICUM 0-1 cr. Prerequisite: first-year standing. Participation in and preparation for the *We, the People* service learning project. Pass/Fail. May be repeated once.
- **150A.** ARRUPE SCHOLARS FOR SOCIAL ACTION ORIENTATION 1 cr. Prerequisites: admission to Arrupe Scholars program and first-year status. Orientation to program goals and engagement in leadership for social action.
- **150B. ARRUPE SCHOLARS FOR SOCIAL ACTION FIRST-YEAR SEMINAR 1 cr.** Prerequisites: admission to Arrupe Scholars program and first-year status. Development of intellectual skills that foster social action leadership.
- **171. INTERDISCIPLINARY SCIENCE 3-4 cr.** Corequisite: AR 171L. Interdisciplinary approach to science teaching in elementary school. Topics include concepts in biology, chemistry, and physics. Coordinated by science departments and the Department of Education and Allied Studies.
- **171L. INTERDISCIPLINARY SCIENCE LAB 0 cr.** Corequisite: AR 171. Laboratory experiments illustrating concepts and procedures developed in AR 171.
- **197. EXPERIENTIAL COLLEGE 0-1 cr.** Introduction to the cultural arts and natural resources of Cleveland. Multiple sections will be offered, each focusing on a topic such as film, music, ethnic communities, and the environment. Pass/Fail. May be repeated up to 4 credits.
- 199. SPECIAL TOPICS 1-3 cr. Specific content announced in the schedule of classes.
- **200.** CROSS-REGISTRATION 1-6 cr. An administrative holding number used to facilitate cross-registration with other Cleveland-area institutions. Credit assigned to proper academic department on submission of transcript. Program described on page 120.
- **203. PROBLEM SOLVING 1 cr.** Creative methods in problem solving. The student gains insight into how one thinks and how to modify one's thinking to be comfortable when confronted with a problem, thereby increasing chances for finding a solution.
- **244. WE THE PEOPLE SOPHOMORE SERVICE LEARNING PRACTICUM 0-1 cr.** Prerequisite: sophomore standing. Participation in and preparation for the *We, the People* service learning project. Pass/Fail. May be repeated once.

- **250. ARRUPE SCHOLARS FOR SOCIAL ACTION: SOLIDARITY 1 cr.** Prerequisites: admission to Arrupe Scholars program and second-year status. Development of a commitment to solidarity through studying multiple disciplinary lenses.
- **273.** CURRENT ISSUES IN POPULATION AND PUBLIC HEALTH 1 cr. Prerequisite: permission of instructor. Interdisciplinary seminar exploring contemporary population and public health issues in the U.S. and globally. Includes topics such as disease outbreaks, current health policy debates, and the community health implications of environmental issues and lifestyles, with special focus on diversity and ethics. May be repeated for up to 3 credits.
- **290. CULTIVATING COMMUNITY 3 cr.** Multidisciplinary course that develops students' awareness of the human condition. Students then are challenged to engage their community and work for positive change.
- **291. JUSTICE AND DEMOCRACY IN A GLOBAL CONTEXT 3 cr.** Interdisciplinary course taught by two or more faculty from the Departments of Theology and Religious Studies, Political Science, and History. Designed for prospective majors and applicable to major requirements in each of those departments. Focus on the interaction of religion and politics in specific historical contexts. Specific topics will vary by semester but typically will include themes related to the construction of religious, racial, and national identities; the roots of violence and conflict resolution; the articulation of differences and the promotion of democracy and justice.
- **295. LIFE AT THE POVERTY LINE 3 cr.** Seminar-style approach to the causal factors linked to prolonged and systemic poverty, as well as the impact of poverty on individuals and institutions; also, the ideological bases of concepts such as "solidarity with the poor," "preferential option for the poor," and distributive justice. Lectures, readings, discussions, and films help students analyze domestic and global poverty.
- **296. IMMERSION EXPERIENCE 1 cr.** Prerequisite: permission of instructor. Faculty-directed/led immersion experience of a minimum of five days that requires students to integrate pre-immersion experience readings/academic literature with the immersion experience in a research paper format. Can also be fourth-credit option for students participating in immersion experiences linked to an academic course.
- **297. CULTIVATING COMMUNITY PRACTICUM 1 cr.** Prerequisites: completion of Cultivating Community and instructor permission. Helps students develop research as well as communication skills within the setting of the Cultivating Community course. Students will be expected to enhance skills in leading discussions, presenting academic work in public, conducting independent research, and writing a clear, well-argued essay.
- 299. SPECIAL TOPICS 1-3 cr. Specific content announced in the schedule of classes.
- **300. STUDY ABROAD 1-16 cr.** An administrative holding number used to facilitate study-abroad registration at those institutions that participate in a special consortial agreement with John Carroll University. Program described on pages 120-121.
- **320. PURPOSE AND PLACE MENTORS 0 cr.** Prerequisite: permission of instructor. Intended for mentors who will assist AR 120 instructors in discussions and activities that help first-year students develop their understanding of the culture of John Carroll University. Graded Satisfactory/Unsatisfactory.
- **340. EXPERIENCES IN LEADERSHIP AND SOCIETY 1 cr.** Prerequisite: participation in the Leadership Scholars Program or permission of chair. Includes 3-5 meetings during the semester to discuss leadership concepts and a 6-8 week leader shadowing experience in the

community. Focuses on developing an understanding of leadership from an organizational or community perspective. Students are encouraged to observe and interact with leaders outside of class to prepare for the complex and practical demands of leading others.

- **344.** WE THE PEOPLE JUNIOR SERVICE LEARNING PRACTICUM 0-1 cr. Prerequisite: junior standing. Participation in and preparation for the *We, the People* service learning project. Pass/Fail. May be repeated once.
- **350.** ARRUPE SCHOLARS FOR SOCIAL ACTION JUNIOR EXPERIENCE 1 cr. Prerequisites: admission to the Arrupe Scholars program and third-year status. Development of social analysis skills that lead to social action.
- **360. LONDON STUDY ABROAD EXPERIENCE 1 cr.** Online seminar for students in the London program. Students will engage in preparatory, experiential, and reflective learning exercises to explore cross-cultural learning and adjustment; to examine social, political, and cultural similarities and differences; and to take advantage of opportunities for the development of intercultural competence. The course is broken into three parts: Part I (Pre-Departure), Part II (In-Country), and Part III (Re-Entry). Required for all London Liberal Arts study abroad students. Pass/Fail.
- **399. POVERTY & SOLIDARITY INTERNSHIP 3 cr.** Prerequisites: acceptance into the Poverty and Solidarity summer internship program and instructor permission. Internship with a community organization that addresses poverty. Includes a final project under faculty supervision that integrates internship activities, academic work, and personal reflection.
- **444. WE THE PEOPLE SENIOR SERVICE LEARNING PRACTICUM 0-1 cr.** Prerequisite: senior standing. Participation in and preparation for the *We, the People* service learning project. Pass/Fail. May be repeated once.
- **450. ARRUPE SCHOLARS SENIOR CAPSTONE 1 cr.** Prerequisites: admission to Arrupe Scholars program and senior status. Social analysis of policy that leads to advocacy and engages the campus. Portfolio presentation.
- **473. INTERNSHIPS IN POPULATION AND PUBLIC HEALTH 4 cr.** Prerequisites: senior standing, permission of instructor, SC 273, and BL 240; prerequisites/corequisites: four additional courses in the Population and Public Health minor. Capstone for Population and Public Health minor. Supervised internship in a public health setting in conjunction with oncampus seminar focused on career development, public health systems, and interdisciplinary analysis of the varieties of public health practices.
- **499. SENIOR SEMINAR 3 cr.** Practicum and policy evaluation in Africana Studies. Students will apply their studies to developing a policy paper on an issue relevant to African Diaspora Studies or African-American Studies. Required of all students planning to complete the concentration.

Fine Arts (FA)

Lecturers: C. Caporella, M. Hoehler, A. Mentschukoff

Music performance courses require participation and training in vocal groups, band, or other ensemble activities within the University. Performance ensembles at John Carroll are open to all who are interested in choral and band experiences. Some groups require an audition before admittance. Students may choose to receive elective credit per semester (up to a maximum of 4 credits) for participation in one of the choirs, or join the choirs or bands on a voluntary, non-credit basis.

Choral Ensembles

109C. CECILIA SINGERS 1 cr. A women's vocal ensemble that explores, prepares, and performs a variety of repertoire from sacred and secular genres. The choir performs at concerts both on and off campus. Audition required.

109D. UNIVERSITY SCHOLA CANTORUM 1 cr. A select vocal ensemble that performs sacred and secular literature throughout the academic year. Students will explore, prepare, and perform music literature from a variety of musical periods spanning chant and polyphony through standard sacred repertoire, contemporary sacred and popular tunes, madrigals, a cappella, and vocal jazz. Venues include major concerts and liturgical celebrations on and off campus, such as the Parents' Weekend Concert and the Christmas Carroll Eve concert as well as special University events throughout the academic year. Audition required.

109E. UNIVERSITY CHAPEL ENSEMBLE 1 cr. A vocal and instrumental ensemble that offers liturgical music for liturgies and prayer services on campus. Students will explore, prepare, and perform sacred and liturgical music literature from a variety of musical periods, focusing on contemporary liturgical and praise songs. The choir rehearses on Sunday at 9 p.m. in the St. Francis Chapel and then performs at the 10 p.m. Mass.

109F. CANTORS AT JCU **0** cr. Vocalists who regularly lead the singing at worship services and liturgies on campus. A primary focus of the ministry of cantor is to proclaim the psalm through song. Audition required.

109G. GOSPEL CHOIR 0 cr. A choral ensemble that offers a wide selection of traditional Gospel, spirituals, and contemporary Gospel praise. Musical performances, including John Carroll's Martin Luther King, Jr., celebration, are held both on and off campus.

109H. UNIVERSITY CHORUS 1 cr. A vocal ensemble open to all students, faculty, staff, administrators, and alumni. This performance group will explore, prepare, and perform large-scale choral works. The choir performs at concerts on campus, including the annual sacred music concert held in the spring semester.

109J. CARROLL SINGERS 1 cr. A vocal ensemble that performs a variety of music in the popular venue, along with some sacred works. The group will explore, prepare, and perform music literature from several musical styles. Literature may include Broadway, vocal jazz, popular tunes, and Renaissance music. The choir will sing at concerts, such as the Parents' Weekend Concert and the Christmas Carroll Eve Concert.

Instrumental Ensembles

110A. JCU PEP BAND 0 cr. An ensemble that enthusiastically supports the Blue Streaks athletic teams and enhances the atmosphere at their games. Musicians of all degrees of experience are welcome.

110B. JCU JAZZ BAND 0 cr. An ensemble that plays an array of classic and contemporary stage band pieces in various styles at concerts on campus and area jazz festivals. Informal audition required.

110C. JCU WIND ENSEMBLE 0 cr. A concert band that begins practice in October in preparation for a holiday concert and resumes rehearsals in the spring for a spring concert. Rehearsals begin when Pep Band rehearsals have ended.

Applied Music

110E. BEGINNING CLASSROOM GUITAR 1 cr. Introduction to various guitar styles; emphasis on reading music and guitar technique. Basic music theory.

110F. INTERMEDIATE CLASSROOM GUITAR 1 cr. Analysis of guitar styles focusing on folk and flamenco. Music theory.

110G. ADVANCED CLASSROOM GUITAR 1 cr. Refinement of guitar styles, including classical. Advanced music theory.

110H. ADVANCED BEGINNING CLASSROOM GUITAR 1 cr. Development of various guitar styles; emphasis on reading music and guitar technique. Basic music theory.

110I. ADVANCED INTERMEDIATE CLASSROOM GUITAR 1 cr. Focus on chords and their application in all styles of music, especially chord progression in jazz. Music theory.

115. CLASS VOICE 1-2 cr. The art of vocal production with individual attention in a class setting. Fundamentals of singing: posture, breathing, tone production, song interpretation, and diction. Students are required to give several solo performances in class during the semester.

299. A, B, C. DIRECTED INSTRUMENTAL STUDY 1-3 cr. Advanced students. Individually directed study of an instrument. Requires audition and approval of instructor.

General Music

114. MUSIC APPRECIATION 1-3 cr. Introductory music course designed to enhance the knowledge of music and the art of analytical, perceptive listening. Explores sources and mediums of musical sound, basic elements of music, and historical periods of music. Class attendance at local music concerts is required.

199. SPECIAL TOPICS 1-3 cr. Topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.

399. SPECIAL TOPICS 1-3 cr. Topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.

499. SPECIAL TOPICS 1-3 cr. Advanced topics in the fine arts. Specific topic announced in class schedule or may be taken with permission as an individual project under supervision.



Biology (BL)

Professors: C. H. Wideman, J. R. Johansen, J. L. Lissemore; *Associate Professors:* C. D. Anthony, C. A. Sheil, M. P. Martin (Chair), R. E. Drenovsky; *Assistant Professors:* E. E. Johnson, R. A. Saporito, P. J. Vanderzalm

Major Programs

Biology encompasses the study of all organisms, and our curriculum provides students a solid foundation in: 1) cellular and molecular biology; 2) organismal biology; and 3) evolutionary biology, ecology, and biodiversity.

Through course work and mentored student research, the faculty emphasize the importance of evolution in biological phenomena, the role of the environment in biological interactions, and ethical behavior in scientific endeavors. These experiences: 1) promote strong critical thinking and analytical skills; 2) provide hands-on experience in biological techniques; and 3) stimulate creative scientific thought.

The academic programs in biology prepare students for graduate and professional school, as well as for careers in the public and private sectors. Mentoring through academic advising, research, and internships prepares our students for future scholarship in addition to social and civic involvement.

The **Biology major** is intended for students seeking careers that require a strong background in biology and chemistry, including health professions (such as medicine, dentistry, optometry, pharmacy, nursing, physical therapy, occupational therapy, physician assistant, public health, and veterinary medicine), teaching, research, and other professions. This major also prepares students for graduate programs in biology and related disciplines such as organismal and evolutionary biology, ecology, developmental biology, physiology, and neuroscience.

The **Environmental Science major** is intended for students seeking careers in environmental and ecological fields, including environmental consulting, government, parks and recreation, teaching, research, environmental law, and other areas requiring strength in environmental science. This major also prepares students for graduate programs in ecology and environmental science.

The **Cell and Molecular Biology major** is intended for students seeking careers in medicine, biomedical research, biotechnology, pharmacy, healthcare, teaching, and other professions requiring a strong foundation in cellular and molecular processes. This major also prepares students for graduate programs in fields such as cell biology, molecular biology, genetics, microbiology, pharmacology, and biochemistry.

All three majors require specific courses in biology, chemistry, mathematics, and other subjects. Students should be aware that some post-baccalaureate degree programs require physics for admission and should discuss course options with their advisors before making course decisions.

Major Declaration: Students must achieve a minimum GPA of 2.5 in BL 155-160 to be considered for formal acceptance into the Biology or Environmental Science majors, or a minimum GPA of 2.5 in BL 155-158 and BL 213 for formal acceptance into the Cell and Molecular Biology major.

Grade Policy for students in all biology majors:

- 1. A grade of C- or higher must be earned in courses required for each major. A grade lower than C- requires that the course be repeated. In the case of an elective course for a major in which a grade below C- was earned, the student may petition to take an alternative course. (Effective with the Fall 2011 semester, this policy applies to all students in biology major courses, whether they have declared or not yet declared a biology major. Courses in which a grade lower than C- was earned prior to Fall 2011 do not have to be retaken.)
- 2. A cumulative GPA of at least 2.0 must be earned in courses required for each major.
- 3. A cumulative GPA of at least 2.0 must be earned in support courses required for each major. (This policy applies to first-year and transfer students matriculating to John Carroll University in Fall 2011 or later.)

Major and Minor Requirements

Note: Students may earn a degree in only one of the majors listed here. Double and triple majors in biology are not permitted. A maximum of 3 credits of BL 398 and BL 399 combined will be accepted for any of the biology majors.

Comprehensive Examination: Students in all biology majors are required to pass the Major Field Test (MFT) in Biology within 12 months prior to their anticipated graduation date.

Major in Biology: 34 credit hours of biology courses, including at least one 400-level course (excluding BL 405 and 478), plus 20-25 credit hours of supporting courses in other departments. Courses are to be chosen with advisor approval and always include applicable laboratory Corequisites. Students may count one of the following courses/course sequences for Biology major credit: CH 431, CH 435-436, PS 326, or PS 426. CH 431 and CH 435-436 will be accepted as four BL credits while PS 326 and PS 426 will be accepted as three BL credits. None of these courses counts as the 400-level Biology requirement.

Required Courses: BL 155, 156, 157, 158, 159, 160, 213; plus at least one course from each of the following areas: A) **cell-to-organism:** BL 230 and 231, 302, 350, 360, 410, 420, 471, or 475; B) **organism-to-biosphere:** BL 206, 222, 224, 255, 331, 370, 406, 421, 423, 424, 425, 426, 435, 440, 444, 447, or 454.

Required Support Courses: CH 141-144 (or 151H, 153), CH 221-224, MT 135, MT 228.

Minor in Biology: 21 credit hours of biology courses, including BL 155-160 and three 200-400 level courses (including at least one laboratory course).

Strongly Recommended: CH 141-144, 221-224

Major in Environmental Science: 35-38 credit hours of biology courses, plus 23-28 credit hours of required support courses in other departments. Courses are to be chosen with advisor approval and always include applicable laboratory Corequisites.

Required Courses: BL 155, 156, 157, 158, 159, 160, 222, 224 or 435, 331, 424 or 447, 444; plus two courses from: BL 206, 224, 255, 399 (3 cr.), 406, 421, 423, 424, 425, 426, 435, 447, 454.

Required Support Courses: CH 141-144 (or 151H, 153); MT 135, 228, PH 115, 115L, 206; plus one course from: PO 361, 363; SC 290, 380.

Strongly Recommended: CH 221-224

Major in Cell and Molecular Biology: 35-37 credit hours of biology and biochemistry courses, plus 28-33 credits of required support courses in other departments. Courses are to be chosen with advisor approval and always include applicable laboratory Corequisites.

Required Courses: BL 155, 156, 157, 158, 213, 215 or 470, 459, 465; CH 435-437; plus two courses from: BL 159 and 160, 301, 302, 310, 399 (3 cr.), 410, 470, 471, 475.

Required Support Courses: CH 141-144 (or 151H, 153), CH 221-224; MT 135, MT 228, PH 125-126.

BL 155-160 is the normal introductory sequence for biology and environmental science majors. If, for a reason acceptable to the department, BL 157, 158, and 160 are taken separately from BL 155, 156, and 159, the student is expected to take BL 155, 156, and 159 or their equivalents before taking the laboratory courses. Entering freshmen will receive advanced placement and/or advanced standing in accord with scores listed on pages 24-25.

Pre-Health Professions

Students planning to apply to medical or dental school are strongly advised to take genetics, biochemistry, statistics, calculus, and physics to prepare for these highly competitive programs. Medical and dental schools require a year of physics for admission. Requirements for other health professional programs can vary substantially so students must check the websites of specific programs and schools to be informed of their requirements.

Pre-health professions students are strongly urged to contact the director of the Pre-Health Professions Program at John Carroll for more information and for assistance

in planning their educational programs and applications to professional schools. Students are also advised to consult current publications and websites relevant to their proposed area of study and preferred colleges, including *Medical School Admission Requirements of U.S. and Canada, Admission Requirements of U.S. and Canadian Dental Schools*, and similar publications for specific professions, such as osteopathy, chiropractic, podiatry, veterinary medicine, physician assistant programs, nursing, physical therapy, occupational therapy, anesthesiology assistant, public health, and optometry.

Lake Erie College of Osteopathic Medicine and John Carroll University have an agreement whereby up to twenty seats per year are reserved for John Carroll students to enter LECOM's medical, dental, and pharmacy schools.

For additional information, please see page 99 in the Graduate and Professional Study section of this *Bulletin* and the Pre-Health Professions website (www.jcu.edu/prehealth).

Pre-Veterinary Students

A minimum of eighty hours of work with a veterinarian is required by Ohio State University and most schools of veterinary medicine. Pre-vet students should contact the Pre-Health Professions director during their freshman year for assistance in planning and for information about specific requirements and application procedures.

Case Western Reserve University Graduate Entry Nursing Program

Biology majors interested in nursing as a career may choose to enter a cooperative program in pre-nursing/nursing and earn the Bachelor of Science from John Carroll University and the Master of Nursing, Master of Science in Nursing, or Doctor of Nursing Practice from the Frances Payne Bolton School of Nursing at Case Western Reserve University. Students in this program normally attend John Carroll for three academic years and complete all University core requirements: CH 141-144, CH 241-244, MT 135, MT 228, BL 155-160, BL 213, 230, 230L, 231, 231L, 310, 310L, and an organism-to-biosphere course. Three upper-level electives in the first year at Case Western Reserve University complete the major requirements: NUND 402, NUND 405, and NUND 408. After successful completion of one year of the Graduate Entry Program at the Frances Payne Bolton School of Nursing, the student will be awarded the Bachelor of Science with a Biology major by John Carroll University. To be eligible for this program, students must complete at least 60 credit hours at John Carroll, apply in writing to the dean of the College of Arts and Sciences by the end of the first semester of the junior year, and be accepted by the Frances Payne Bolton School of Nursing in the usual manner. Students planning to follow this course of study should contact the director of the Pre-Health Professions Program during the first semester of their sophomore year.

Ursuline College Accelerated Bachelor of Science in Nursing (B.S.N.) Program

Ursuline College and John Carroll University have an agreement whereby at least two seats per year in the Breen College of Nursing at Ursuline College's Accelerated B.S.N. Program are designated for John Carroll University graduates. Students may apply to Ursuline College's Admissions Office (through the coordinator of B.S.N. Enrollment) as early as the beginning of their junior year at John Carroll.

Prior to beginning nursing courses, applicants must complete the following courses with a GPA of at least 3.0: BL 155-158, 213, 230, 230L, 231, 231L, 310, 310L; CH 141-144, 221, 223; MT 122 (or MT 135 and 228); PL 316; PS 101, 175; SC 101; Nutrition (offered at other Cleveland-area institutions such as Tri-C). In addition, applicants must have a GPA of at least 3.0 in mathematics and science courses and must be in good standing at John Carroll. Applicants for the two allotted seats will be considered in the order in which applications are received. When the designated seats are filled, other applicants will be considered on a case-by-case basis. Admission is not guaranteed, and acceptance into the program is at the sole discretion of Ursuline College. For more information, contact the John Carroll Pre-Health Profession director or visit the website for the Breen College of Nursing at Ursuline College (http://www.ursuline.edu/Academics/Nursing/).

Biology Minor and Interdisciplinary Concentrations

An optional minor in biology is available to students majoring in any subject outside of biology.

Biology majors may elect interdisciplinary concentrations or minors in areas such as **neuroscience**, **environmental studies**, or **population and public health**. It is strongly recommended that students interested in these programs investigate them as early as possible in their academic careers. Interested students should refer to the section on "Interdisciplinary Minors and Concentrations" in this *Bulletin* (pages 83-90) for more information.

Teacher Licensure

Students planning on obtaining licensure to teach Adolescent/Young Adult (AYA) Life Science at the secondary school level should consider taking ED 100 as soon as possible and should contact the Department of Education and Allied Studies by the end of their freshman year for guidance on requirements.

Additional Information

To receive a Bachelor of Science in biology, transfer students must complete a minimum of 17 credit hours in the department.

Many courses offered by the biology department include a laboratory and/or field-work component; these are listed as separate entries that immediately follow the entry for the corresponding lecture component of the course.

Graduate Studies in Biology

The department offers a program of studies leading to the degree of Master of Science or Master of Arts. Degree requirements and courses are described in the *Graduate Studies Bulletin* and on the department website (www.jcu.edu/biology).

Biology majors planning to continue studies leading to master's or doctoral studies are urged to consult publications and websites relevant to the proposed area of study, including *Peterson's Guide to Graduate Study, Graduate Programs and Admissions Manual of the Graduate Record Examination Board*, and websites of schools to which admission will be sought. Students should also consult their biology advisor for undergraduate program recommendations. In addition, they can seek assistance from the department chair and coordinator of graduate studies.

- **101. SPECIAL TOPICS IN BIOLOGY 3 cr.** For non-science majors. Offered on an irregular basis and based on a topic chosen by the instructor. Used primarily for designation of courses transferred from other universities.
- **102. SPECIAL TOPICS LECTURE IN BIOLOGY 4 cr.** Corequisite: BL 102L. For non-science majors. Offered on an irregular basis and based on a topic chosen by the instructor. Used primarily for designation of courses transferred from other universities.
- **102L. SPECIAL TOPICS LABORATORY IN BIOLOGY. 0 cr.** Corequisite: BL 102. Two hours of laboratory per week.
- **103. PLANT SCIENCE 4 cr.** Corequisite: BL 103L. For non-science majors. Three hours of lecture per week. Structure and function in unicellular and multicellular plants; general principles of plant science.
- **103L. PLANT SCIENCE LABORATORY 0 cr.** Corequisite: BL 103. Two hours of laboratory per week.
- **109. ENVIRONMENTAL BIOLOGY 4 cr.** Corequisite: BL 109L. For non-science majors. Three hours of lecture per week. Relationship between human activity and the natural environment; food production, water supplies, air and water pollution, nuclear and non-nuclear energy, hazardous and toxic materials in the environment, climate change and world population growth. Economic implications of, and possible solutions to, these problems.
- **109L. ENVIRONMENTAL BIOLOGY LABORATORY 0 cr.** Corequisite: BL 109. Two hours of laboratory per week. Laboratory and field experiences intended to explore the scientific basis of environmental issues of the past, present, and future. Emphasizes a general understanding of the impact of human activity on the world and strategies for managing human activity for the good of the human population and the planet.
- 111. FUNDAMENTALS OF ECOLOGY 4 cr. Corequisite: BL 111L. For non-science majors. Three hours of lecture per week. Characteristics of natural communities, their structure, distribution, and behavior. Interrelationships of organisms, including humans, within natural ecosystems.
- **111L. FUNDAMENTALS OF ECOLOGY LABORATORY 0 cr.** Corequisite: BL 111. Two hours of laboratory per week. Emphasis on biomes and environmental adaptation, scientific method, and collection of data by observation.
- **112. HUMAN BIOLOGY 4 cr.** Corequisite: BL 112L. For non-science majors. Three hours of lecture per week. Basic human anatomy, physiology, and reproduction

- **112L. HUMAN BIOLOGY LABORATORY 0 cr.** Corequisite: BL 112. Two hours of laboratory per week. Basic human anatomy, physiology, and reproduction using models, handson experimental techniques, and computer-based techniques.
- **115. HUMAN GENETICS AND RACE 4 cr.** Corequisite: BL 115L. For non-science majors. Three hours of lecture per week. Basic principles of genetics, both at the transmission and molecular levels. Introduction to principles of cell division, inheritance, and human pedigree analysis. DNA structure, chromosomal organization, gene structure, gene expression, genetic variation, population genetics, and race.
- **115L. HUMAN GENETICS AND RACE LAB 0 cr.** Corequisite: BL 115. Two hours of laboratory per week. Basic principles of scientific method and inheritance, molecular genetics, and biotechnology. Field trips and other activities when appropriate to the topic.
- **155, 156, 159. PRINCIPLES OF BIOLOGY I-II-III 3-4 cr. each.** For science majors. 155 is Prerequisite to 156 and 159. Three hours of lecture per week. 155: basic chemical principles; cell structure and organization; metabolism of plants and animals. 156: plant and animal anatomy and physiology. 159: biodiversity and evolutionary relationships among living organisms. Chair permission required for 4-credit BL 155, which includes supplemental readings on current and past events in biology, medicine, and medical ethics.
- **157, 158, 160. PRINCIPLES OF BIOLOGY LABORATORY I-II-III 1 cr. each.** Corequisites: BL 155, 156, and 159. Three hours of laboratory per week. 157: laboratory study of the scientific method as applied to biology; cell division; development; functions of cell membranes and enzymes; reactions and products of photosynthesis. 158: laboratory study of plant and animal anatomy and physiology. 160: evolutionary relationships among bacteria, algae, protists, fungi, and multicellular plants and animals.
- **206. TROPICAL BIOLOGY 4 cr.** Prerequisite: permission of instructor; corequisite: BL 206L. For students participating in John Carroll's Costa Rica Study Abroad Program. Intensive lecture/laboratory/field course in Costa Rica examining tropical biology and emphasizing ecology, evolution, conservation, and sustainable agriculture.
- **206L. TROPICAL BIOLOGY LABORATORY 0 cr.** Corequisite: BL 206. For students participating in John Carroll's Costa Rica Study Abroad Program.
- **213. GENETICS 4 cr.** Prerequisites: BL 155-158. Four hours of lecture per week. Principles of molecular, transmission, quantitative, evolutionary, and population genetics; social and ethical implications of genetics.
- **215. INTRODUCTION TO BIOTECHNOLOGY 3 cr.** Prerequisites: BL 213 or a grade of at least B in both BL 155 and BL 157, plus instructor permission; corequisite: BL 215L. May not be taken concurrently with BL/CH 470, and no credit will be given if BL/CH 470 has been completed. One hour of lecture per week. Introduction to basic techniques of DNA analysis, including restriction digests, DNA cloning, plasmid and genomic DNA isolation, polymerase chain reaction, and computer analysis of DNA and protein sequences.
- **215L. INTRODUCTION TO BIOTECHNOLOGY LABORATORY 0 cr.** Corequisite: BL 215. Four hours of laboratory per week.
- **222. GENERAL ECOLOGY 3 cr.** Prerequisites: BL 155-160 or permission of instructor. Three hours of lecture per week. Interactions between plants, animals, and the physical environment. Population ecology, community dynamics, biogeochemical cycles, and biomes.
- **224. TERRESTRIAL ECOLOGY 3 cr.** Prerequisite or corequisite: BL 222, MT 228, BL 224L. One hour of lecture per week. Ecological data collection and analysis. Students study model organisms to examine various aspects of terrestrial ecology, including animal behavior, food web dynamics, competition, and population dynamics.

- **224L. TERRESTRIAL ECOLOGY LABORATORY 0 cr.** Corequisite: BL 224. Four hours of laboratory per week.
- **230-231.** HUMAN ANATOMY AND PHYSIOLOGY I-II 4 cr. Prerequisites: BL 155, 156, 157, 158; corequisites: BL 230L, 231L. BL 230 is Prerequisite to BL 231. Three hours of lecture per week. Integrated discussion of human anatomy and physiology. Note: Completion of only BL 230 and 230L means the single semester will not count toward the BL major or BL minor. This class is intended for students planning to enter health professions such as nursing, physical therapy, physician assistant, and occupational therapy.
- 230L-231L. HUMAN ANATOMY AND PHYSIOLOGY LABORATORY I-II 0 cr. Three hours of laboratory per week.
- **240. EPIDEMIOLOGY 3 cr.** Prerequisite: BL 155-158 or grade of B or higher in BL 112-112L; grade of C or higher in MT 122, MT 228, MT 229, or EC 208. Three hours of lecture per week. Basic epidemiological principles, concepts, and methods used in surveillance and investigation of global and domestic health-related events; discussion of historical and current examples from epidemiologic studies; focus on populations living in resource-limited settings.
- **255. LOCAL SUMMER FLORA 3 cr.** Prerequisites: BL 155-160 or permission of chair. Taxonomy of the local vascular plant flora of Northeast Ohio. Plants of forests, wetlands, coastal areas, roadsides, and urban landscapes. Lectures and identification will be conducted in the field, with some laboratory instruction and lectures on campus.
- **260. POVERTY AND DISEASE 3 cr.** Prerequisites: BL 155-158. Three hours of lecture per week. Global and U.S. poverty; public health; epidemiology; U.S. health disparities, e.g., diabetes, obesity, HIV/AIDS; global health disparities, e.g., HIV/AIDS, tuberculosis, malaria; evolutionary factors in chronic and infectious disease; ethical issues in public health.
- **301. INTRODUCTION TO CELL BIOLOGY 3 cr.** Prerequisites: BL 155-156, 213. Three hours of lecture per week. Structure and function of plant and animal cells and their organelles. Emphasis on modern cell biology techniques.
- **302. DEVELOPMENTAL BIOLOGY 3 cr.** Prerequisites: BL 155-156, 213. Three hours of lecture per week Molecular, genetic, and cellular mechanisms of development. Emphasis on invertebrates and vertebrates.
- **310. MICROBIOLOGY 4 cr.** Prerequisite: BL 213; corequisite: BL 310L. Two hours of lecture per week. Structure, physiology, and genetics of bacteria; ecological and medical importance emphasized. Some discussion of viruses and eukaryotic microorganisms.
- **310L. MICROBIOLOGY LABORATORY 0 cr.** Corequisite: BL 310. Four hours of laboratory per week.
- **331. GLOBAL CLIMATE CHANGE 3 cr.** Prerequisites: BL 155-160, or instructor permission for non-biology students in the Environmental Studies concentration. Three hours of lecture/discussion per week. Historical overview of climate change; global water and carbon cycles; effects of greenhouse gases, aerosols, and radiative forcing mechanisms on climate processes and feedbacks; effects of rapid climate change on selected ecosystems; human influences on climate; likely future changes.
- **350. VERTEBRATE ANATOMY 5 cr.** Prerequisites: BL 155-160; corequisite: BL 350L. Three hours of lecture per week. Anatomy, development, evolution, and phylogeny of vertebrates.
- **350L. VERTEBRATE ANATOMY LABORATORY 0 cr.** Corequisite: BL 350. Six hours of laboratory per week.

- **360. HUMAN PHYSIOLOGY 4 cr.** Prerequisites: BL 155-158; corequisite: BL 360L. Three hours of lecture weekly. Muscle physiology, circulation, respiration, excretion, and digestion in mammals as well as the neuronal and hormonal mechanisms regulating these processes.
- **360L. HUMAN PHYSIOLOGY LABORATORY 0 cr.** Corequisite: BL 360. Three hours of laboratory per week.
- **370. EVOLUTION 3 cr.** Prerequisites: BL 155-160. Three hours of lecture per week. Introduction to modern evolutionary biology, including evolutionary processes and speciation, character evolution, and macroevolution.
- **398. DIRECTED READINGS IN BIOLOGY 1-3 cr.** Prerequisite: permission of instructor. Directed readings in a specific area of biology. A maximum of 3 credits of BL 398 and BL 399 combined will be accepted for any of the biology majors.
- **399. SPECIAL PROBLEMS IN BIOLOGY 1-3 cr.** Prerequisites: junior status, 3.0 GPA in a biology major, and permission of instructor. Laboratory or field research in a specific area of biology under faculty supervision. A maximum of 3 credits of BL 398 and BL 399 combined will be accepted for any of the biology majors.
- **405. SCIENTIFIC ILLUSTRATION 3 cr.** Prerequisites: BL159/160 and permission of instructor. Experience in art not required. Developing skills of observation in biological sciences and learning how to produce publication-quality illustrations of measured accuracy, conceptualized drawings, and diagrammatic images for dissemination of research results. Development of a concise but comprehensive portfolio showcasing various techniques and graphic styles. An additional fee is required for personal illustration materials. This course does not fulfill the 400-level biology course requirement for biology majors.
- **406. TROPICAL FIELD BIOLOGY 3 cr.** Prerequisites: BL 155-160 and permission of instructor. BL 222 is recommended. Three hours of lecture per week; spring break field trip to Central or South America required. Introduction to the biology and ecology of the tropics, with an emphasis on the New World Tropics, and to tropical field research. Group research project and program fee required.
- **410. MEDICAL MICROBIOLOGY 3 cr.** Prerequisite: BL 213. Bacterial and viral pathogens of humans and those aspects of the immune response important in resistance and immunity to infectious diseases.
- **415. INTRODUCTION TO SYSTEMATIC BIOLOGY 3 cr.** Prerequisites: BL 155-160, BL 350 or 370, and permission of instructor. Three hours of lecture per week. Identification, naming, description, classification, and organization of extant and extinct biological diversity. Philosophy and practice of methods of reconstructing evolutionary history.
- **420. PLANT PHYSIOLOGY 3 cr.** Prerequisites: BL 155-160. Three hours of lecture per week. Detailed study of photosynthesis, water relations, mineral nutrition, and stress responses in plants with emphasis on current research techniques.
- **421. HERPETOLOGY 4 cr.** Prerequisites: BL 155-160; corequisite: BL 421L. Three hours of lecture per week. Intensive study of amphibians and reptiles, with special emphasis on classification, ecology, and evolution of North American species.
- **421L. Herpetology Laboratory 0 cr.** Corequisite: BL 421. Three hours of laboratory per week. Some Saturday and weekend field trips required.
- **423. BIOLOGY OF THE AMPHIBIA 4 cr.** Corequisite: BL 423L. Three hours of lecture per week. Classification, evolution, ecology, and behavior of frogs, salamanders, and caecilians.

- **423L. BIOLOGY OF THE AMPHIBIA LABORATORY 0 cr.** Corequisite: BL 424. Three hours of laboratory per week. Some weekend field trips required. Optional weeklong field trip at end of semester requiring an additional program fee.
- **424. AQUATIC RESOURCES 4 cr.** Prerequisites: BL 155-160; corequisite: BL 424L. Three hours of lecture per week. Study of aquatic organisms and their environment. Study of algae, insects, and fish as biological indicators of water and habitat quality in stream, lake, and wetland ecosystems. Impacts of water pollution, acidification, and other anthropogenic disturbance on aquatic systems.
- **424L. AQUATIC RESOURCES LABORATORY 0 cr.** Corequisite: BL 424L. Four hours of laboratory per week. Saturday laboratory with field trips and analysis of aquatic life.
- **425. ICHTHYOLOGY 4 cr.** Prerequisites: BL 155-160; corequisite: BL 425L. Three hours of lecture per week. Evolution, zoogeography, taxonomy, behavior, and ecology of North American fishes.
- **425L. ICHTHYOLOGY LABORATORY 0 cr.** Corequisite: BL 425. Four hours of laboratory per week. Some weekend field trips required.
- **426. BIOLOGY OF THE REPTILIA 4 cr.** Prerequisites: BL 155-160; corequisite: BL 426L. Three hours of lecture per week. Classification, evolution, and ecology of extant and fossil reptiles, excluding birds.
- **426L. BIOLOGY OF THE REPTILIA LABORATORY 0 cr.** Corequisite: BL 426. Three hours of laboratory per week. Some weekend field trips required. Optional week-long field trip at end of the semester; requires an additional program fee.
- **430. MEDICAL PARASITOLOGY 4 cr.** Prerequisites: BL 155-160; corequisite: BL 430L. Two hours of lecture per week. Parasitic forms of medical importance. Emphasis on their biology, clinical presentation, the ecology of the disease, and epidemiology. Includes morphology, physiology, and diagnosis.
- **430L. MEDICAL PARASITOLOGY LABORATORY 0 cr.** Corequisite: BL 430. Four hours of laboratory per week. Diagnostic aspects of parasites; pathological changes in tissues.
- **435. PLANT ECOLOGY 4 cr.** Prerequisites: BL 155-160. Three hours of lecture per week. Study of the distribution and abundance of plants from organismal, population, and community perspectives. Emphasizes both seminal and novel research.
- **435L. PLANT ECOLOGY LABORATORY 0 cr.** Corequisite: BL 435. Four hours of laboratory per week.
- **440. BEHAVIOR 3 cr.** Prerequisites: BL 155-160. Three hours of lecture/discussion per week. Evolutionary approach to animal behavior with emphasis on recent research.
- **444. ADVANCED ECOLOGY 4 cr.** Prerequisites: BL 222, MT 228; corequisite: BL 444L. Three hours of lecture/discussion per week. Topics include predatorprey interactions, global change, niche theory, competition, null models, and community assembly rules.
- **444L. ADVANCED ECOLOGY LABORATORY 0 cr.** Corequisite: BL 444. Three hours of laboratory per week. Students work in teams on a project of their own choosing. Includes experimental design, data analysis, writeup, and presentation.
- **447. ALGAE AS BIOINDICATORS 4 cr.** Prerequisites: BL 159, 160; corequisite: BL 447L. Two hours of lecture per week. Theory and practice of using algae as bioindicators of water quality in streams and lakes. Taxonomy of indicator groups will be covered.
- **447L. ALGAE AS BIOINDICATORS LABORATORY 0 cr.** Prerequisites: BL 159, 160; corequisite: BL 447. Four hours of laboratory per week. Some weekend field trips required.

- Emphasis is on diatoms, but cyanobacteria, green algae, euglenoids, and other indicator taxa will also be examined. Research projects required.
- **454. DESERT BIOLOGY 3 cr.** Prerequisites: BL 155-160. Three hours of lecture weekly; optional field trip to western U.S. at end of semester (see BL 454L). Introduction to abiotic and biotic factors influencing desert ecosystems. Group literature review project required.
- **454L. DESERT FIELD BIOLOGY 1 cr.** Prerequisite: permission of instructor; corequisite: BL 454. Weeklong field trip to deserts of the Western U.S. Program fee required.
- **459. MOLECULAR CELL BIOLOGY 3 cr.** Prerequisite: BL 213. Three hours of lecture per week. Cell signaling, regulation of protein and eukaryotic cell cycle, and cancer. Focus on current primary literature and experimental techniques. Presentation of a seminar required.
- **465. MOLECULAR GENETICS 3 cr.** Prerequisites: BL 213, CH 431 or 435. Three hours of lecture per week. Gene and genome analysis; genome organization; transposable elements; chromosome structure; replication and expression of genetic information in bacteria and eukaryotes. Emphasis on current primary literature.
- **470. MOLECULAR METHODS LABORATORY 3 cr.** Prerequisites: CH 431 or 435, CH 437; permission of instructor. Prerequisite/corequisite: BL 465 or 565. Eight hours of laboratory per week. Methods used in analysis of proteins and nucleic acids.
- **471. IMMUNOLOGY 3 cr.** Prerequisite: BL 213. Three hours of lecture per week. Concepts of humoral and cell-mediated immunity with emphasis on the cellular basis of the immune response. Experimental evidence emphasized.
- **475. ENDOCRINOLOGY 3 cr.** Prerequisites: BL 155-158. Three hours of lecture per week. The endocrine glands, hormones, and their mechanisms of action in mammals.
- **478. BIOLOGY SEMINAR 1 cr.** Prerequisites: BL 155-158. One hour of lecture per week. Current topics presented by invited guests, faculty, and students.
- **479. SPECIAL TOPICS IN BIOLOGY 14 cr.** Prerequisites: vary by topic. Offered on an irregular basis; topics chosen by instructor. A lecture/discussion course; may include laboratories or field trips. For directed readings, see BL 398; for student research, see BL 399.



Borromeo Seminary Institute

Adjunct Associate Professors: M. A. Latcovich (President/Rector); A. M. Pilla (Bishop Emeritus); Adjunct Assistant Professors: C. Engelland, D. Ference; Adjunct Instructors: J. Loya, G. Bednar, D. Dunson, P. Bernier, A. Turner

Borromeo Seminary, housed on the campus of the Center for Pastoral Leadership of the Catholic Diocese of Cleveland, prepares college students seeking the ordained priesthood of the Catholic Church. Its program is designed according to the norms and recommendations of the United States Catholic Conference of Bishops and its Program of Priestly Formation. Students admitted by the Diocese of Cleveland or by their religious order to the program for collegiate seminarians matriculate at John Carroll University, where they are known as members of the Borromeo Seminary Institute.

Borromeo Seminary Institute students complete all of the academic requirements of John Carroll University and are expected to fulfill additional course requirements specified by the collegiate seminary program.

All members of the institute are required to complete the following courses in philosophy as well as theology and religious studies. Descriptions of the courses can be found in the sections on those departments in this *Bulletin*.

Philosophy

- 101. Introduction to Philosophy 3 cr.
- 240. 17th- and 18th-Century European Philosophy 3 cr.
- 246. 19th- and 20th-Century Philosophy 3 cr.
- 301. Introduction to Logic 3 cr.
- 304. Philosophy of the Human Person 3 cr.
- 308. Philosophy of God 3 cr.
- 368. Ethical Theory 3 cr.
- 387. Philosophy of Nature 3 cr.
- 395. Metaphysics 3 cr.
- 396. Theories of Knowledge 3 cr.

Theology And Religious Studies

Please Note: TRS has replaced **RL** as the designation for the Department of Theology and Religious Studies. Thus, all of the course numbers below—in their complete form—would be preceded by that designation. Where a course number has changed, the previous number appears in parentheses following the course title.

- 101. Introduction to Theology and Religious Studies 3 cr.
- 200. Old Testament Introduction 3 cr.
- 205. New Testament Introduction 3 cr.
- 238. Catechism of the Catholic Church 3 cr.
- 368. Christian Social Justice 3 cr.
- 378. The Franciscan Movement (RL 376) 3 cr.
- 498. Borromeo Senior Seminar (RL 496) 3 cr.

Business Information Systems (BI)

Professors: C. A. Watts; Associate Professors: M. D. Treleven, M. P. Lynn (Chair), R. T. Grenci, B. Z. Hull; Instructor: R. D. Blamer

The objective of the Business Information Systems faculty is to develop students' technical and analytical skills, enabling them to apply their expertise more fully as analysts, consultants, and project managers in their chosen fields. Technical and analytical skills—as well as knowledge of business operations and information systems—are relevant to all organizational processes and to all business majors. As such, Business Information Systems courses are an integral part of the business core. They also serve key roles in the management, marketing, and logistics majors, including Business Information Systems courses that are cross-listed with technology-oriented marketing courses.

Students interested in a business major that includes the skills and knowledge related to Business Information Systems should consider the management, marketing, and logistics majors. Students interested in software programming and application development should consider the Computer Information Systems major offered by the Department of Mathematics and Computer Science.

- **107. SPREADSHEET APPLICATIONS 1 cr.** (1st five weeks of term) Overview of spreadsheet analysis, with students learning and/or reinforcing spreadsheet software skills.
- **108. DATABASE APPLICATIONS 1 cr.** (2nd five weeks of term) Overview of database applications, with students learning and/or reinforcing database skills.
- **109. COMMUNICATIONS APPLICATIONS 1 cr.** (last 5 weeks of term) Overview of communications-related software applications. Students learn or reinforce their knowledge of subjects such as presentation graphics software and advanced word processing features.
- **200. MANAGEMENT INFORMATION SYSTEMS 3 cr.** Prerequisite: BI 108 or competency waiver for Database Applications. Introduction to management information systems, decision support systems, and the systems development process. Special emphasis on information resource management and the strategic use of information systems in organizations. Group projects add practical experience to the conceptual approach.
- **326. OPERATIONS MANAGEMENT 3 cr.** Prerequisite: EC 208 or MT 122 or MT 228. Planning, organizing, and controlling the process of transforming raw materials into finished products. Application of qualitative and quantitative methods and evaluation techniques to such areas as quality management, just-in-time environments, material requirements planning, inventory management, scheduling, facility planning, plant layout, and job and process design.
- **341. DATA-DRIVEN DECISION MAKING 3 cr.** Prerequisite: BI 200. A practical, hands-on approach to using information technology resources to enable and support effective and efficient decision making. Builds on the knowledge and skills gained in BI 200. Students will be placed in the role of managers, given business problems weekly, and required to design and query databases and data warehouses, work with decision support systems and knowledge-based/expert systems (artificial intelligence), and apply data-mining techniques to make management-level decisions.

Business Information Systems

- **371. MANAGEMENT SCIENCE 3 cr.** Prerequisite: EC 207 (or competency waiver) or MT 122 or MT 228. Application of mathematical optimization to decision making. Uses MS-Excel and several add-ins as tools to find optimal solutions to a wide variety of business problems. Topics include linear programming, network models, non-linear programming, goal programming, and simulation.
- **383. PROJECT MANAGEMENT 3 cr.** Prerequisite or corequisite: BI 326. Principles and methods useful for planning and controlling a project, including development of a project plan, budgeting, resource planning and scheduling, and project monitoring and control. Study of selected computerized packages, including Microsoft Project, with examples of different types of projects from manufacturing and service industries.
- **406. SEMINAR IN PRODUCTION/OPERATIONS MANAGEMENT 3 cr.** Prerequisite: BI 326. Study of contemporary issues in operations management not covered in depth in other departmental courses. Specific topic, method of presentation, and student requirements will be designated by the seminar leader.
- **407. SEMINAR IN INFORMATION SYSTEMS 3 cr.** Prerequisite: BI 200. Study of contemporary issues in management information systems not covered in depth in other departmental courses. Specific topic, method of presentation, and student requirements will be designated by the seminar leader.



Business Logistics (LG)

Professors: P. R. Murphy, Jr., C. A. Watts; Associate Professors: M. P. Lynn (Chair), B. Z. Hull

The Department of Management, Marketing, and Logistics is dedicated to educating and serving its students, the University, and the community through quality teaching, significant research, and appropriate community involvement. The primary goals of the business logistics faculty are to achieve national recognition, and to provide students, the University, and the business community with comprehensive, upto-date information about business logistics theory and practice. Methods of achieving these goals include, but are not limited to, excellent teaching, quality research (both academic and practitioner), student internships, and faculty involvement in logistics-related organizations.

Business logistics is the management of the flow of goods and information from sources of acquisition to ultimate consumption. Business logistics involves transportation, warehousing, channel management, inventory control, order processing, and customer satisfaction. While accounting for 20-25 percent of the cost of doing business in many firms, only recently has business logistics become a separate area of study.

The field is extensive, and many business organizations are potential employers. There is a shortage of college graduates to fill available entry-level positions, and these opportunities are expected to grow because of the increasing emphasis on the efficient movement of goods and information. Entry-level positions are available to graduates in such areas as logistics analysis, transportation, warehousing operations, consulting, third-party logistics, and customer service. Summer and part-time work is usually available. These opportunities provide the student with valuable practical experience in logistics.

Requirements

Major in Business Logistics: A total of 60-63 credit hours as described below.

Business Core: 43 credit hours, including MN 461.

Major Courses: 21 credit hours. MK 308 or BI 341, or equivalent course approved by the logistics faculty; four courses from LG 328, LG 350, LG 361, LG 405, LG 440; one course chosen from MK 302 or BI 383; one course chosen from MK 402 or BI 371.

328. BUSINESS LOGISTICS 3 cr. Prerequisites: EC 201-202 or permission of instructor. Analysis of business logistics functions such as transportation, warehousing, inventory management, ordering, and customer satisfaction, with emphasis on interactions between these functions. Focus on problem solving with analytic tools.

Business Logistics

- **350. FUNDAMENTALS OF TRANSPORTATION 3 cr.** Prerequisites: EC 201-202 or permission of instructor. Contemporary analysis of transportation systems, including regulatory issues, carrier management, for-hire and private transportation. Covers characteristics of traditional and emerging modes of transportation.
- **361. GLOBAL LOGISTICS 3 cr.** Prerequisite: LG 328. Principles and practices of logistical management in a global environment. Emphasis on the regulatory, technological, social, business, and political issues that might impact transnational supply-chain efficiency.
- **405. CONTEMPORARY TOPICS IN LOGISTICS MANAGEMENT 3 cr.** Prerequisite: LG 328 or as announced. Contemporary topics in logistics management not covered in depth in other business logistics courses. Specific topic, method of presentation, and student requirement will be designated by the seminar leader.
- **440. SUPPLY CHAIN MANAGEMENT 3 cr.** Prerequisites: LG 328 and BI 200. The design and implementation of supply chains to maximize their efficiency. Focus on the analysis and design activities of the supply chain development process and introduction to system implementation and maintenance issues.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: business logistics major and overall GPA of 3.0 or higher; permission of chair and faculty member. Research project supervised by a full-time faculty member of the Department of Management, Marketing, and Logistics willing to act as advisor. The student selects an aspect of supply chain management, establishes goals, and develops a plan of study that must be approved by the chair and filed with the dean's office. Consult the chair for the departmental guidelines established for such study.



Career Education (CE)

Students may apply a maximum of four CE credits toward graduation requirements and, unless otherwise specified, no more than eight credits from any combination of AR, CE, FA, or PE (120-174) courses. Credit from CE courses may not be used to satisfy Core requirements. A maximum of three CE credits can come from internship experience.

- **101. INTRODUCTION TO CAREERS 1 cr.** Prerequisite: freshmen or sophomore standing. Examination of self in relation to the world of work in terms of values, skills, and interests. Exploration of occupational paths for all majors; employer-employee expectations; basic job search strategies; resume preparation; development of interviewing skills; introduction to the benefits of career experience opportunities. Not available to students with credit in CE 111.
- **102. INTERNSHIP EXPERIENCE 1 1 cr.** Prerequisite: approval of Career Center. Practical work experience (paid or unpaid) in a job related to academic and career goals. The student also must complete specific assignments for credit. Credit not awarded retroactively.
- **103. INTERNSHIP EXPERIENCE 2 2 cr.** Prerequisite: approval of Career Center. Work experience (paid or unpaid) with increased responsibility for previous or new employer. The student also must complete specific assignments for credit. Credit not awarded retroactively.
- **104. INTERNSHIP EXPERIENCE 3 3 cr.** Prerequisite: approval of Career Center. Work experience (paid or unpaid) with increased responsibility for previous or new employer. The student also must complete specific assignments for credit. Credit not awarded retroactively.
- 111. EXPLORING YOUR OPTIONS 1 cr. Prerequisite: freshmen or sophomore standing. Exploration of self-assessment and academic options, focusing on choice of major and/or career. Consideration of personal interests, values, and skills in relation to academic options. These options will be discovered through assessments, classroom discussion, and instructor/academic advisor consultations. Not available to students with credit in CE 101.
- **121. INTRODUCTION TO THE ACCOUNTING PROFESSION 1 cr.** Prerequisites: freshmen, sophomore, or junior standing and intention to major in accountancy. Introduction to opportunities available in the accounting profession and the requirements of the accountancy major. Preparation for junior-year internship.
- **122. INTRODUCTION TO CAREERS IN PSYCHOLOGY 1 cr.** Intended for sophomores and juniors who are considering a major in psychology, or those already majoring in psychology. Introduces students to information that will help them select and pursue a career in psychology or a related field. Career options (occupational fields) for those students who do not wish to pursue graduate school at this time will also be discussed.
- **131. INTRODUCTION TO THE WORLD OF WORK 1 cr.** Prerequisite: junior or senior standing. Designed to assist juniors and seniors in transitioning from college to career. Topics include the philosophy of work, job search strategies and skills, options for securing pre-graduation work experience, negotiating job offers, and financial planning. Students will evaluate their marketable skills and experience, conduct research on a career field, interview a professional in that field, and participate in a mock interview or career advising session.
- **199. INTERNSHIP EXPERIENCE-NONCREDIT TRANSCRIPT NOTATION 0 cr.** Prerequisite: approval of Career Center. Practical work experience (paid or unpaid) in a job related to the student's academic and career goals. Transcript notation not awarded retroactively. Experience will be listed on transcript; no academic credit is awarded.

Chemistry (CH)

Professors: P. R. Challen, D. P. Mascotti; *Associate Professors*: M. A. Nichols, M. J. Waner, Y. C. Chai; M. L. Kwan; C. D. Bruce; *Assistant Professor*: M. P. Setter (Chair); *Visiting Assistant Professor*: L. Gao

The Department of Chemistry is equipped with modern laboratory facilities available for hands-on experience for students preparing for careers in chemistry, biochemistry, medicine, biotechnology, and other fields. Recent graduates have gone on to graduate study in chemistry, biochemistry, medicine, dentistry, law, pharmacy, and forensic science. Others have gone directly into the work force in chemistry and allied fields.

The department is approved by the Committee on Professional Training of the American Chemical Society. The three major programs leading to a Bachelor of Science in chemistry are described below. Students' choices among them should be based on long-range career plans.

Undergraduate research has become a vital component of the modern chemistry curriculum in recent decades. The department maintains an active undergraduate research program, and nearly all majors are involved in research projects during their studies. These projects occur with chemistry faculty at John Carroll, the Lerner Research Institute at the Cleveland Clinic Foundation, and other universities and local industries. The department was recognized in 2002 with a Heuer Award for Outstanding Achievement in Undergraduate Science Education from the Council of Independent Colleges for making undergraduate research a capstone experience.

Major Programs

The **Comprehensive Chemistry major** is designed primarily for the student who intends to become a professional chemist. It provides the preparation necessary for graduate study in chemistry.

Students who successfully complete the program for the comprehensive major in chemistry have satisfied the minimum requirements specified by the Committee on Professional Training of the American Chemical Society. These students will be certified to the society by the department.

The **Biochemistry major** is intended for students who wish to use the undergraduate major in chemistry as preparation for further study and/or employment in medicine, dentistry, or any of the other life sciences: molecular biology, pharmacy, clinical chemistry, biotechnology, pharmacology, toxicology, industrial hygiene, veterinary medicine, and other health-related fields. To serve such a variety of career goals, the program offers flexibility in some requirements.

The **General Chemistry major** is available to students who desire a systematic training in chemistry as background for a career in other related fields, such as business, education*, information science, journalism, forensic chemistry, or law. It is

also useful to students who wish to earn the equivalent of a second major in another discipline. (*Students wishing to teach chemistry or general science in secondary schools should confer with the Department of Education and Allied Studies during freshman year.)

Major and Minor Requirements

No changes in, substitutions for, or exceptions to the following requirements will be permitted without prior, written authorization of the department chair and the approval of the appropriate dean by academic petition.

Comprehensive Chemistry Major: 46-51 credit hours. CH 141, 142, 143, 144 (or 151, 153), 221, 222, 223, 224, 261, 263, 365, 366, 367, 368, 431, 441, 443, 478A, 478B, 481, 482, plus a minimum of six credits of upper-division electives, at least one of which is laboratory-based. CH 399 is strongly encouraged.

Required Support Courses: 28 hours. MT 135, 136, 233; PH 135, 135L, 136, 136L, and 246 or 325; EP 217. Pre-chemical engineering students should take PH 246. CS 128 is strongly encouraged.

Biochemistry Major: 63-74 hours. CH 141, 142, 143, 144 (or 151, 153), 221, 222, 223, 224, 261, 263, 361 (or 365-366), 367, 435, 436, 437, 478A, 478B; BL 155-156, 157-158; MT 135, 136 or, by permission, 228; PH 125, 125L, 126 and 126L (or PH 135, 135L, 136, 136L).

Students will take three approved upper-division CH or BL electives, of which at least one is CH. It is strongly recommended that CH 441, 443, be taken as one of the CH electives. CH 399 is strongly encouraged.

Upper-division biology electives may be selected from BL 213, 254-254L, 301, 310-310L, 350-350L, 360-360L, 410, 459, 465, 471, 475, or other courses approved by the chemistry department chair. Premedical students are strongly advised to select BL 213 as one elective.

General Major: 33-41 hours. CH 141, 142, 143, 144 (or 151, 153), 221, 222, 223, 224, 261, 263, 361 (or 365-366), 367, 441, 443, 478A, 478B, and two upper-division electives. CH 399 is strongly encouraged.

Required Support Courses for General Majors and Minors: 15-18 hours. PH 125, 125L, 126, 126L (or PH 135, 135L, 136, 136L); MT 135, 136 or, by permission, 228.

Minor in Chemistry: 22-27 hours. CH 141, 142, 143, 144 (or 151, 153), 221, 222, 223, 224, 261, 263, 361 (or 365-366), 367.

Required Support Courses: as listed above.

Concentration in Chemistry: 17-22 hours. CH 141, 142, 143, 144 (or 151, 153), 221, 222, 223, 224, 261, 263.

Chemistry

A general chemistry major combined with a minor in business (see pages 79-80) is excellent preparation for a career in industrial chemistry if one's goal is management or an M.B.A. This would also allow a student to complete the B.S. in chemistry and M.B.A. at John Carroll in five years of full-time study. PL 311 should be taken in the Core curriculum to facilitate this goal. Interested students should consult with their advisor early in their freshman or sophomore year.

A general chemistry major combined with the criminology sequence in sociology (see page 331) is excellent preparation for graduate study in forensic chemistry.

Application

Typically in the spring semester of the sophomore year, all intended chemistry majors, regardless of program, must make a *formal application* to the department to be accepted as majors. Applicants with a minimum GPA of 2.5 in the chemistry core sequence CH 141, 142, 143, 144 (or 151, 153), and 221, 223 may be accepted unconditionally as chemistry majors. A minimum GPA of 2.0 in the support courses is also required. A student who does not meet these criteria, but who does have a minimum GPA of 2.25 in the entire chemistry core sequence, will be considered for conditional acceptance as a chemistry major.

All chemistry majors, regardless of program, must maintain a GPA of 2.0 in the chemistry courses and in the required sequence of support courses.

Interdisciplinary Concentrations

The department collaborates in the interdisciplinary concentrations in environmental studies and neuroscience. These programs are described in the section on "Interdisciplinary Minors and Concentrations" (pages 83-90).

Those who participate in the neuroscience concentration should complete the biochemistry program with the chemistry major.

Pre-Engineering Programs

Students interested in engineering have three options:

- 1. They may elect the 3/2 program, which consists of the first three years at John Carroll as a science major followed by two years at a participating engineering school. Successful completion of the 3/2 program leads to two bachelor's degrees: a B.S. from John Carroll and a bachelor's in engineering from the second school. Further details are provided under "Engineering Programs" in "Preparation for Graduate and Professional Studies" (page 97).
- 2. They may complete the B.S. in chemistry (ordinarily as a comprehensive major) and then enter an engineering school for a further degree. It would typically require a total of six years to obtain a B.S. from John Carroll and an M.S. from another institution.

3. They may choose to complete two years of pre-engineering at John Carroll and then transfer to an engineering school to pursue a bachelor's degree in engineering.

Cooperative Education Program in Chemistry

A cooperative education (co-op) program in chemistry provides interested and capable students with a combination of formal and applied educational experiences. This is accomplished by alternating periods of university study with full-time employment in an industrial, governmental, or clinical setting. Participation in such a program helps students grow personally and professionally. It also gives students a distinct advantage in obtaining satisfying permanent employment.

To be eligible for admission to the program, students must be accepted chemistry majors (whether comprehensive, biochemistry, or general), with a minimum average of 2.5 both overall and in chemistry. Students should demonstrate dexterity and understanding in laboratory work as well as the ability to communicate effectively in speech and writing. Prerequisites for admission to the program include successful completion of CH 222, 224 and CE 101 *or* CE 111. Students should apply for admission to the co-op program when they apply for acceptance into the major program.

There are three required work experiences, credited as CE 102-104. For a general discussion of these Career Education courses, see pages 51-52 of this *Bulletin*. For each approved work experience, one unit of academic credit is available. On approval by the chair, the three credits for CE 102-104, inclusive, may be used to satisfy an upper-division elective in chemistry. Because of the alternate work-study program, co-op students may require five years to complete the B.S. degree.

Optional Minor/Concentration/Certificate

An **optional minor** in chemistry is available to students majoring in any other department. A cumulative quality-point average of 2.0 must be achieved in the chemistry and support-course sequences.

Students in other departments may prefer a concentration in chemistry. A cumulative quality-point average of 2.0 must be achieved in the chemistry course sequence.

A non-degree certificate program is also available for students who desire a solid chemistry background without a full degree (typically post-baccalaureate students). See page 75.

103. ENVIRONMENTAL CHEMISTRY 3 cr. Corequisite: CH 103L. Application of chemical principles to environmental and ecological problems.

103L. ENVIRONMENTAL CHEMISTRY LABORATORY 1 cr. Corequisite: CH 103. Two hours of laboratory per week. Laboratory experience in specific environmental problems.

- **105. CHEMISTRY IN SOCIETY 3 cr.** Corequisite: CH 105L. Basis of science literacy which enables non-science students to make better informed decisions on issues relating to science and technology. Ethical issues, air and water quality, stratospheric ozone depletion, global warming, energy sources and use, plastics, drugs, and medications.
- **105L.** CHEMISTRY IN SOCIETY LABORATORY 1 cr. Corequisite: CH 105. Two hours of laboratory per week. Laboratory experience in topics discussed in CH 105.
- **141-142. GENERAL CHEMISTRY I-II 4 cr. each.** Corequisite: CH 143-144. Stoichiometry, thermochemistry, states of matter, atomic structure, chemical bonding, oxidation-reduction, acid-base, solutions. Homogeneous and heterogeneous equilibria, electrochemistry, kinetics, chemistry of metals and non-metals, and other relevant topics.
- **143-144. GENERAL CHEMISTRY LABORATORY I-II 1 cr. each.** Corequisites: CH 141-142. Three hours of laboratory per week. Laboratory experiments illustrating principles developed in Corequisite lecture courses.
- **151. CHEMICAL PRINCIPLES 4 cr.** Prerequisite: permission of chair; corequisite: CH 153. Introductory chemistry for the well-prepared student. Topics include atomic structure, chemical bonding, molecular structure, acid-base theories, solutions, thermodynamics, kinetics, equilibria, electrochemistry, coordination chemistry.
- **153. CHEMICAL PRINCIPLES LABORATORY 1 cr.** Prerequisite: permission of chair; corequisite: CH 151. Three hours of laboratory per week. Review of basic laboratory techniques. Experiments illustrating principles developed in the Corequisite lecture course.
- **195. SPECIAL TOPICS IN CHEMISTRY 1-3 cr.** Subject matter not covered by established courses but of interest to faculty member and students involved. Topic announced in course schedule
- **221-222. ORGANIC CHEMISTRY I-II 3 cr. each.** Prerequisites: CH 141-144 (or 151, 153); corequisites: CH 223-224. Theoretical and descriptive treatment of the structure and reactions of the more representative classes of aliphatic and aromatic organic compounds. Aliphatic, alicyclic, and aromatic hydrocarbons, stereochemistry, carbocation theory, electrophilic substitution reactions, functional derivatives of aliphatic and aromatic hydrocarbons, carbanion theory, nucleophilic displacement, elimination reactions, and spectroscopic analysis.
- **223-224. ORGANIC CHEMISTRY LABORATORY I-II 1 cr. each.** Corequisites: CH 221-222. Four hours of laboratory per week. Laboratory experiments to illustrate the behavior of important classes and reaction types.
- **261.ANALYTICAL CHEMISTRY 3 cr.** Prerequisites: CH 141-144 (or 151, 153); corequisite: CH 263. Three hours of lecture per week. Overview of chemical analysis; introductory statistics; equilibria; redox chemistry; basic principles of modern electrochemical, spectroscopic, and chromatographic analysis; sampling and sample preparation.
- **263. ANALYTICAL CHEMISTRY LABORATORY 1 cr.** Corequisite: CH 261. Four hours of laboratory per week. Practice in classical analysis, sampling and sample preparation, and introductory instrumental analysis. Experiments are designed to illustrate the principles discussed in CH 261.
- **298. TEACHING ASSISTANT IN CHEMISTRY 0 cr.** Prerequisite: permission of chair. Duties may include preparation of laboratories, assisting faculty and student activities during laboratories, and/or grading. Graded SA/FA.

- **299. SPECIAL TOPICS IN CHEMISTRY 1-3 cr.** Extended treatment of a chemical topic of general interest. Topic and Prerequisites will be announced in the course schedule.
- **361. INTRODUCTORY PHYSICAL CHEMISTRY 3 cr.** Prerequisites: CH 141-144 (or 151, 153), 221-224, MT 135 or MT 133 and 134; prerequisites/corequisites: PH 125/125L. Physical chemistry for biochemistry-oriented students. Thermodynamics, kinetics, and other physical principles necessary for an understanding of the function of living systems.
- **365. PHYSICAL CHEMISTRY I 3 cr.** Prerequisites: CH 141-144 (or 151, 153), 221-224, MT 135 or MT 133-134; prerequisites/corequistes: MT 136; PH 125/125L, or 135/135L. Kinetic molecular theory and the properties of gases, thermodynamics, thermodynamic properties of solutions, and kinetics.
- **366. PHYSICAL CHEMISTRY II 3 cr.** Prerequisite: CH 365; prerequisites/corequisites: PH 126/126L or 136/136L. Introduction to quantum mechanics, atomic and molecular structure, liquid and solid states, phase equilibria, electromotive force, and symmetry.
- **367. PHYSICAL CHEMISTRY LABORATORY I 2 cr.** Prerequisites: CH 261, 263; prerequisite/corequisite: CH 365 (or 361). Four hours of laboratory per week. Laboratory experiments designed to illustrate the principles discussed in CH 361 and 365. Emphasis on scientific writing.
- **368. PHYSICAL CHEMISTRY LABORATORY II 1 cr.** Prerequisite: CH 367; prerequisite/corequisite: CH 366. Four hours of laboratory per week. Laboratory experiments designed to illustrate the principles discussed in CH 365, 366.
- **399. UNDERGRADUATE RESEARCH 1-3 cr.** Prerequisites: approval of a faculty sponsor and/or permission of department chair. Number of credits to be agreed on by student and faculty sponsor, and specified at registration. Minimum of four hours' work per week are expected per credit hour. May be repeated for credit; however, only three credits of CH 399 may be used to fulfill an upper-division course elective. CH 399 credit also counts as upper-division lab credit. Systematic investigation of an original research problem. Satisfactory presentation of the results at a scientific meeting, department seminar, or University forum is ordinarily expected. A written report must be submitted by the time a third credit is finished.
- **431. GENERAL BIOCHEMISTRY 4 cr.** Prerequisites: CH 221-224. One-semester survey; proteins, enzymes, nucleic acids, lipids, membranes, and carbohydrates. Approximately half of the course is devoted to metabolism and metabolic regulation. May be used as a Corequisite for CH 437.
- **435. BIOCHEMISTRY I 3 cr.** Prerequisites: CH 221-224; BL 155, 156 strongly recommended. Structure/function of proteins, nucleic acids, lipids, biomembranes, and carbohydrates. Enzyme catalysis, coenzymes, regulation of proteins, DNA binding proteins, molecular genetics (introduction), laboratory methods, and signal transduction. Note: See listing under Biology for BL 465, a separate course focusing on the biochemistry/molecular biology of gene expression.
- **436. BIOCHEMISTRY II 3 cr.** Prerequisite: CH 435. Bioenergetics and the metabolism of carbohydrates, lipids, amino acids, and nucleotides. Emphasis on integration and regulation by metabolic, hormonal, and genetic factors. Photosynthesis and some physiological topics.
- **437. BIOCHEMISTRY LABORATORY 1 cr.** Corequisite: CH 431 or CH 435. Four hours of laboratory per week. Protein isolation, chromatography, electrophoresis, quantitative assays, enzyme kinetics, DNA isolation and restriction enzyme analysis, fluorescence and UV/VIS spectroscopy, and bioinformatics. Note: CH/BL 470 provides additional laboratory instruction in methods for biochemistry/molecular biology.

- **439. BIOCHEMISTRY III 3 cr.** Prerequisite: CH 436. In-depth examination of selected topics with extensive reading of original research articles and review papers. Topics covered in recent years: G-proteins, SH2 and SH3 domains in protein-protein recognition, signal transduction pathways, oncogenes, tumor suppressors, prenylation of proteins, ubiquitin-based protein degradation, anti-cancer drugs, regulation of gene expression, angiogenesis, pharmacokinetics gene delivery, and new developments in laboratory methods and instrumentation.
- **441. INSTRUMENTAL ANALYSIS 3 cr.** Prerequisite: CH 261; pre- or corequisite: CH 365 or CH 361; corequisite: CH 443. Three hours of lecture per week. In-depth treatment of modern chemical instrumentation; quantitative analysis using UV/VIS, IR, NMR, MS, AAS, ICP, electrochemistry, chromatography; qualitative characterization of pure substances through interpretation of IR, NMR, and mass spectra. Emphasis will be on the unique capabilities and limitations of each technique. Highly recommended for students interested in pursuing a career in chemical research and/or development.
- **443. INSTRUMENTAL ANALYSIS LABORATORY 2 cr.** Prerequisite: CH 263; Corequisite: CH 441. Four hours of laboratory per week. Practice in instrumental analysis and experimental design, reflecting quantitative determinations and qualitative characterization of substances. Experiments are designed to utilize principles discussed in CH 441.
- **470. MOLECULAR METHODS LABORATORY 3 cr.** Prerequisites: CH 435, 437, and permission of instructor; prerequisite/corequisite: BL 465 or 565. Eight hours of laboratory per week. Methods used in analysis of proteins and nucleic acids.
- **478. CHEMISTRY SEMINAR 0 cr.** Prerequisites: CH 221-224. One hour per week. All chemistry majors are required to complete satisfactorily two semesters of CH 478. Meets one hour per week. Attendance at eight seminars per semester constitutes completion of this requirement. Offers the opportunity to learn about the frontiers of chemistry. Guest speakers from industry, government, and academe, including John Carroll faculty and students. Graded SA/FA.
- **481. INORGANIC CHEMISTRY 3 cr.** Prerequisite: CH 361 or 365. Principles correlating the chemistry of the elements and their compounds. Atomic structure, chemical periodicity, chemical bonding, inorganic stereochemistry, acids and bases, electromotive force, group theory, symmetry, coordination compounds, and nonaqueous systems.
- **482. INORGANIC CHEMISTRY LABORATORY 1 cr.** Prerequisite: CH 367. Four hours of laboratory per week. Laboratory syntheses and analyses to illustrate the chemistry of the elements and their compounds.
- **495. SPECIAL TOPICS IN CHEMISTRY 1-3 cr.** Subject matter not covered by established courses but of interest to faculty member involved. Topic announced in course schedule. May be repeated for credit.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: approval of faculty member and permission of department chair. Independent study under the supervision of a faculty member.

Chinese (CN)

Confucius Classroom Instructors: B. Huang, H. Mei

Studying the Chinese language helps develop skills in listening, speaking, reading, and writing, but that is only the beginning of its benefits. Courses in Chinese open a window onto one of the world's most ancient civilizations. Students learn about Chinese history, cultural values, philosophical and religious beliefs, and aesthetic traditions, including the art of Chinese calligraphy.

Chinese is currently spoken by nearly one-fifth of the world's population. Since China is one of the five permanent members of the United Nations Security Council, Chinese is also an official U.N. language. Moreover, China plays a major role in the global economy that is likely to continue expanding. In short, a knowledge of Chinese promotes an appreciation and understanding of China's past and present while also equipping students to deal with its future.

- **101. BEGINNING CHINESE 1 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multi-media, computer-assisted instruction. (Fall)
- **102. BEGINNING CHINESE II 3 cr.** Prerequisite: CN 101 or equivalent. Amplification of language skills in a cultural context. (Spring)
- **110. SPEAKING IN CHINESE: BEGINNER SUPPLEMENTAL PRACTICE 1 cr.** Prerequisite: concurrent enrollment in CN 101 or CN 102, or permission of instructor. Optional course recommended for those considering study abroad in China or who wish additional oral and listening practice; not applicable toward Division I language requirement. CN 110A (Fall), CN 110B (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Chinese at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE CHINESE I, II 3 cr. each.** Prerequisite: CN 102 or equivalent. CN 201 or equivalent Prerequisite for CN 202. Further development of the four language skills for communication in a cultural context; expanding of vocabulary, idiomatic usage, and grammar. (Fall-201, Spring-202)
- **210. SPEAKING IN CHINESE: INTERMEDIATE SUPPLEMENTAL PRACTICE 1 cr.** Prerequisite: concurrent enrollment in CN 201 or CN 201, or permission of instructor. Optional course recommended for those considering study abroad in China or who wish additional oral and listening practice; not applicable toward Division I language requirement. CN 210A (Fall), CN 210B (Spring)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Chinese at the intermediate level. May be repeated with a different topic.

- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301-302. ADVANCED CHINESE I, II 3 cr. each.** Prerequisite: CN 202 or equivalent. CN 301 or equivalent Prerequisite for CN 302. Advanced study of the four language skills for communication in a cultural context; expanding of vocabulary, idiomatic usage, and grammar. (Fall-301, Spring-302)
- **310. SPEAKING IN CHINESE: ADVANCED SUPPLEMENTAL PRACTICE 1 cr.** Prerequisite: concurrent enrollment in CN 301 or CN 302, or permission of instructor. Optional course recommended for those considering study abroad in China or who wish additional oral and listening practice; not applicable toward Division I language requirement. CN 310 (Fall), CN 310B (Spring)
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr. each.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Prerequisites: CN 302 or 398 or equivalent, and permission of instructor. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** Prerequisites: CN 302 or 398 or equivalent; CN 498 or equivalent. May be repeated with a different topic.



Classical and Modern Languages and Cultures (CMLC)

Professors: K. M. Gatto, H. N. Sanko, T. R. Nevin; Associate Professors: G. J. Sabo, S. J., D. G. Anderson, A. Pérez-Romero, E. Luengo, S. Casciani, M. Pereszlenyi-Pinter (Chair), G. Compton-Engle, J. Karolle-Berg; Assistant Professors: M. L. Thornton, L. Ferri, K. Nakano; Visiting Assistant Professor: K. A. Ehrhardt

The Department of Classical and Modern Languages and Cultures prepares students to become part of an internationally complex world. Students with translingual and transcultural competence excel in careers in business, law, medicine, education, and government. Through the study of languages and cultures at John Carroll and its programs abroad, our students:

- engage in active learning through proficiency-based instruction, state-of-theart technology, and an emphasis on hands-on, international experience.
- gain knowledge of cultural perspectives, products, and practices to enable them to understand the nuances of cultural diversity.
- learn to communicate skillfully and effectively in multiple forms of expression.
- increase their ability to act competently in a global and diverse world.
- further develop their critical analytical skills with a global perspective.
- prepare themselves to enter competitive markets as well as graduate and professional programs.

Consistent with the University's mission, the department is committed to contributing to the development of students into responsible citizens of the world who excel in learning, leadership, and service.

The department offers majors and minors in Classical Languages (Latin, Ancient Greek), Classical Studies, French, and Spanish, and a minor in German.

Courses are also available in Arabic, Chinese, Italian, Japanese, Russian, Slovak, and International Cultures. These programs are individually listed in the *Bulletin*.

Interdisciplinary minors and concentrations include East Asian Studies (page 188), International Business (page 87), International Economics and Modern Language (page 87), Italian Studies (page 88), Latin American and Latino Studies (page 88), and Modern European Studies (page 84).

The description of the major continues on page 168.

Major and Minor Requirements*

CLASSICS

Major in Classics: 33 credit hours.

Classical Languages track: Nine courses in GK and/or LT at any level, including LT/GK 301, 490, 491, and one other 300-level language course; CL 301 or 302; and another CL course. A comprehensive examination is required.

Classical Studies track: Six 3-credit courses in GK and/or LT at any level, plus CL 220; two of the following: CL 301, CL 302, AH 317, or another approved CL, HS, or AH course; two of the following: PL 210, TRS 205, or another approved PL or TRS course. At least nine credits must be at the 300 level or above.

MODERN LANGUAGES

Major in French: 36 credit hours, including FR 315 and 325/326 or equivalents. Details on page 228.

French track: May include one course (3 credit hours) with French or Francophone content from International Cultures (IC) or approved cognate areas. A comprehensive examination is required.

French Studies track: May include up to 4 courses (12 credit hours) with French or Francophone content from International Cultures (IC) or approved cognate areas. A comprehensive examination is required.

Major in Spanish: 36 credit hours, as follows: SP 201-202 and/or 301-302; 311, 314 or 330; 315; 321; 325-326 or 327-328. Three to five additional upper-division courses, two of which must be 400-level literature and/or culture courses; one of the remaining may be an IC course on literature in translation. A comprehensive examination is required. Details on page 339.

Minors in French, German, or Spanish: 21 hours, beginning at any level.

Minor in Greek or Latin: 18 hours in GK or LT at any level; two CL courses may be substituted.

Minor in Classical Studies: 18 hours; two GK or LT courses may be substituted.

Core Courses and the Language Requirement

The Division I Core requirement in languages (6 credits) is met with two sequential courses in the same language. Students may begin a new language or continue a language at their entry level of competence, as determined by placement examination.

Classical and Modern Languages and Cultures

Division II Core requirements and special designations (R/S/D/W/L) may be met with approved literature or culture courses taught in the department, offered either in the original language or in English (CL for classical studies and IC for modern languages).

Study Abroad

The department participates in the following semester or year-long programs abroad:

- Chinese: Beijing (Jesuit Center)
- German: Universität Dortmund, Germany (exchange program)
- Italian: Vatican City (John Carroll program; fall semester)
- Japanese: Sophia University (Tokyo), Nanzan University (Nagoya), Kansai Gaidai University (Osaka)
- Latin: Loyola University, Rome
- Spanish: Costa Rica, Madrid (John Carroll programs; fall semester); Monterrey (Mexico)

The following short programs are also sponsored by the department:

- French: France (spring break)
- Italian: Italy (spring break and summer institute)
- Japanese: Japan (3-week summer study-tour; every other year)

With the advisor's permission, arrangements are made individually with the department chair and the Center for Global Education. Students studying abroad are normally sophomores or juniors with at least a 2.5 GPA. Early consultation is advised.

Students who study abroad in their major must fulfill a residence requirement of no fewer than 6 semester hours of credit, usually at the 400 level, upon return from abroad. The department may require more than 6 semester hours of credit in the case of obvious deficiencies

Teaching Licensure

The Department of Education and Allied Studies does not offer multi-age licensure, K-12 in foreign languages. Individuals interested in foreign language teaching may seek an Alternative Resident Educator License for World Language (grades K-12) through the Ohio Department of Education. One of the Prerequisites is a bachelor's degree in a world language. Interested students should contact the Ohio Department of Education or consult the education department chair for details.

Classics (CL)

Professor: T. R. Nevin; Associate Professor: G. Compton-Engle; Visiting Assistant Professor: K. A. Ehrhardt

Courses in classical studies are offered by the Department of Classical and Modern Languages and Cultures. (For general information about the department, see page 163.) The department offers major programs in classical languages and classical studies, as well as optional minors and a variety of individual courses that may be used to fulfill Core requirements or taken as electives. For courses in Latin, see page 255; for courses in Greek, see page 227.

The study of Latin and Greek culture provides students with a better understanding of the roots of their own culture, which has been strongly influenced by Roman and Greek art, medicine, law, and religion. The pursuit of Latin and Greek language skills not only provides the broadening experience that comes from learning how to think and express oneself in another language, but also can be a great aid to building vocabulary and language skills in English. Majors in classical languages have gone on to successful careers in such diverse areas as teaching, law, banking, library science, diplomatic service, and business.

Students of almost any major may earn the Bachelor of Arts in Classics (B.A.Cl.) by completing four Latin courses beginning at the 200 level.

Students seeking licensure for secondary school teaching should consider the possibility of using electives so as to become licensed in a second field. Students are reminded that the equivalent of at least 30 semester hours of credit in Latin or Greek is required for teaching licensure.

Any single language course may be taken as an elective and count toward graduation. Two courses in language skills are needed for fulfillment of the language Core requirement.

Courses with the CL designation are offered in English for students with an interest in classical culture but no knowledge of Greek or Latin. These courses also may be used for Core requirements. There are no Prerequisites for any CL course. All CL courses are taught in English.

The department also offers a track in classical languages for the Master of Arts in humanities. Degree requirements and course descriptions are published in the *Graduate Studies Bulletin*.

Major and Minor Requirements

Major in Classics: 33 credit hours.

Classical Languages track: Nine 3-credit courses in GK and/or LT at any level, including LT/GK 301, 490, 491, and one other 300-level language course; CL 301 or 302; and another CL course. A comprehensive examination is required.

Classical Studies track: Six 3-credit courses in GK and/or LT at any level, plus CL 220; two of the following: CL 301, CL 302, AH 317, or another approved CL, HS, or AH course; two of the following: PL 210, TRS 205, or another approved PL or TRS course. At least nine credits must be at the 300 level or above.

Minor in Greek or Latin: 18 hours. Six GK or LT courses. Two CL courses may be substituted with permission of the department.

Minor in Classical Studies: 18 hours. Six CL courses. Two GK or two LT courses at any level may be substituted with permission of the department.

- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Supervised independent study at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Topics to be selected by instructor and announced in the class schedule. Only a 3-credit course may apply to the Core. May be repeated with a different topic.
- **210. WORD POWER THROUGH THE CLASSICS 3 cr.** Focus on the Greek and Latin roots of the English language. Special emphasis on legal, medical, and scientific terminology.
- **220.** CLASSICAL MYTHOLOGY 3 cr. Introduction to the myths of Greece and Rome. Special attention to ancient conceptions of the gods, the nature of the hero, functions of myth, and modern retellings of classical myth.
- **222.** THE CLASSICAL WORLD IN FILM 3 cr. The representation of Greek and Roman culture in film. A study of films, both masterworks and travesties, in relation to the classical texts that have inspired them.
- **230. HISTORY OF ANCIENT GREEK PHILOSOPHY (PL 210) 3 cr.** Ancient Greek philosophical thought, with major emphasis on the works of Plato and Aristotle.
- **240.** CLASSICAL EPIC IN ENGLISH 3 cr. The *Iliad* and *Odyssey* of Homer, the *Aeneid* of Vergil, and other classical epic poems. Oral and literary epic, romantic epic, and historical epic; their development and characteristics.
- **250.** CLASSICAL DRAMA IN ENGLISH 3 cr. Greek and Roman comedy and tragedy, with special attention paid to the tragic and comic hero, staging, and the role of performance within Greek and Roman culture.
- **260.** CLASSICAL SATIRE IN ENGLISH 3 cr. Readings from such authors as Horace, Juvenal, Persius, and Petronius, who cast a critical eye on Rome and its vices.
- **290. WOMEN IN ANCIENT GREECE AND ROME 3 cr.** Representation of women in ancient literature and art. An examination of both fictional and real women (e.g., Medea, Cleopatra) and the everyday details of anonymous women's lives.

- **298. INTERMEDIATE INDEPENDENT STUDY (291-292) 1-3 cr.** Supervised independent study. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301. ANCIENT GREEK HISTORY 3 cr.** Greek history from the Minoan period through the zenith of Athenian democracy, to the conquests of Alexander and eventual incorporation into the Roman empire. Special emphasis on Greek cultural achievements.
- **302. ROMAN HISTORY 3 cr.** History of Rome from its humble beginning, through the Roman Republic, to the creation and collapse of the Roman empire. Attention paid to all aspects of Roman life, from family and social structure to political institutions.
- **303. PHILOSOPHY OF LANGUAGE (PL 303) 3 cr.** Implications of linguistic experience beginning with a survey of the main historical approaches to the meaning of language. Consideration of special problems such as sense and reference; thought and language; sign, symbol, and metaphor; linguistics and logic.
- **340. THE ARCHAEOLOGY OF GREECE 3 cr.** Study of the major archaeological sites of Greece from the Bronze Age through the classical period. Attention paid to the development of Greek material culture (including architecture, sculpture, and pottery) and its relationship to Greek history. Includes a study tour in Greece.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.



The Tim Russert Department of Communication and Theatre Arts (CO)

Professors: J. B. Miller, J. J. Schmidt, M. E. Beadle (Chair), A. R. Stephenson; Associate Professors: D. R. Bruce, B. G. Brossmann, K. L. Gygli, M. O. Finucane; Assistant Professors: C. Buchanan, J. Allen-Catellier; Visiting Instructor: E. J. Han

The Tim Russert Department of Communication and Theatre Arts is a nationally lauded program dedicated to providing students with the theory and practice that will allow them to flourish in today's convergent communications environment. In spring 2009 the department was renamed to honor John Carroll alumnus Tim Russert '72 (1950-2008), award-winning journalist and long-time moderator of NBC's "Meet the Press."

The major provides students opportunities to develop leadership, advocacy, critical thinking, and communication excellence in writing, speaking, and performing. The discipline is studied from the viewpoints of interpersonal relations, organizational communication, journalism, rhetoric, public relations, theatre, and multimedia channels (e.g., broadcasting, film, Internet). Students take courses in each area and then develop their own program with the assistance of a department advisor. When applying to major in communication, a minimum GPA of 2.25 is required.

In addition to a major and a minor in communication or theatre, the department offers a concentration in political communication and participates in the concentrations offered in environmental studies, Africana studies, and the major/minor offered in Women's and Gender Studies.

Department faculty direct programs in debate, radio and television broadcasting, journalism, public relations, and theatre. Department facilities include the WJCU-FM radio station, the Marinello Little Theatre, Kulas Auditorium, the Klein Television Studio, the debate lab, and the multimedia journalism lab.

Qualified senior majors may participate in independent study or an internship to gain experience in research or a communications industry. The department has connections with a wide range of organizations with which to place students.

Recent John Carroll Communication and Theatre Arts alumni have careers in broadcasting, public relations and advertising, sales and promotions, marketing and management, theatre administration, and education, as well as with foundations and nonprofit organizations. The major is an excellent foundation for those who desire to pursue graduate study in communication and theatre, management, education, public affairs, or law.

CO 100 is required of all students for graduation. Students with a year or more of high school speech may test out of CO 100 by passing both a written examination and an oral presentation. CO 100 does not count toward the major.

Major and Minor Requirements

Major in Communication and Theatre Arts: 39 credit hours.

General Track: CO 200, 220, 245, 495; one of the following: CO 225, 395, 396, 397; one of the following: CO 215, 235, 265, 285; seven additional communication courses at the 300 or 400 level.

Integrated Marketing Track: CO 200, 220, 245, 315, 407, 417, 495; three of the following: CO 201, 399*, 415, 440, 497; one of the following: CO 300, 305, 400, 441; one of the following: CO 225, 321, 322, 323; one of the following: CO 286, 446, 465.

Journalism Track: CO 200, 220, 225, 245, 319, 320, 410, 467, 495; four of the following, three at the 300 or 400 level: CO 201, 215, 226, 286, 305, 323, 324, 325, 330/331, 335/336, 346, 355, 380, 397, 399*, 421/422, 435, 438, 449, 455, 465, 497.

Persuasive and Relational Track: CO 200, 220, 235, 245, 400, 446, 495; five of the following: CO 300, 305, 341, 346, 390, 399*, 405, 441, 449, 450, 497; one additional CO course at the 200 level or above.

Theatre Track: CO 200, 220, 245, 280, 365, 375, 384; two of the following: CO 265, 285, 314, 395, 396; three of the following: CO 201, 343, 345, 399*, 470, 471; Theatre Capstone Course-one of the following: CO 475, 476.

Visual Media Track: CO 200, 220, 245, 495; *Video* concentration: CO 215, 225, 319, 320, 397, 497; three of the following, one at the 400 level: CO 201, 226, 286, 321, 322, 323, 324, 330/331, 335/336, 355, 399*, 421/422, 435, 438, 465. *Film* concentration: CO 316, 317, 318, 396, 399 (film directing), 497; three of the following, one at the 400 level: CO 201, 226, 286, 321, 322, 323, 324, 330/331, 335/336, 355, 421/422, 435, 438, 465.

Minor in Communication: 21 credit hours.

Three of the following: CO 200, 201, 220, 225, 245, 280; one course from the following group: CO 215, 235, 265, 285; three additional courses at the 300 or 400 level.

Minor in Theatre Arts: 21 credit hours.

(Please note that CO majors may count up to nine credit hours of the minor toward completion of the major requirements when the same courses count toward both.) Two of the following: CO 265, 280 (EN 203, 222, or CL 250 can be substituted with permission from the chair of the CO department), 285; two of the following: CO 314, 395, 396; one of the following: CO 365, 375, 384, 399*; one of the following: CO 343, 345, 470, 471; one of the following: CO 475, 476.

Majors may also select a focus in Media Writing or Film Studies as part of their major course work. *Film:* CO 316, 317, 396, 399* (Film Directing); one of the following: CO 318, 399* (Film and Identity in Japan and Mexico). *Media Writing:* CO 225, 395, 396, 397; one of the following: CO 308, 389, 407, 455.

Political Communication interdisciplinary concentration offered with the Department of Political Science. 12 credit hours of CO courses; 12 credit hours of Political Science courses. (See Interdisciplinary Programs.) Open to all majors.

*Special Topics (399) must be appropriate to the particular track; consult advisor.

Practicum courses and CO 100 do not apply toward the department major, minor, or Division II of the University Core. Note: No more than a total of four hours may be earned toward graduation requirements in any combination of CO 140, 145, 150, 155, 160, 175, or 180. No more than three hours can be earned in any one practicum. Of the 39 hours required for the major, 24 must be earned at John Carroll University.

Qualified senior majors may participate in internships and independent study. Not only can they earn credits for their work, but also gain experience in a communications industry. The department has an established network of internships in the Cleveland area – one of the country's largest communications markets. Internships are available at major television stations, cable companies, radio stations, sports industries, newspapers, and theatres. Interns studying public relations and interpersonal communications have been placed with Cleveland companies and advertising agencies on a regular basis.

Graduates of the department are eligible to apply for the "Meet the Press" Fellowship awarded to a graduating senior motivated to pursue a career in political journalism. The fellowship is a nine-month (September-May) position at "Meet the Press," NBC's number-one-rated public affairs program.

Secondary teaching students may select sequences of courses leading to licensure in language arts. Timely consultation with a departmental advisor is essential to ensure that requirements of the State of Ohio are satisfied.

The department offers a master's degree in communications management. Course requirements are listed in the *Graduate Studies Bulletin*.

100. SPEECH COMMUNICATION 2 cr. Principles of oral communication; application of theory as it relates to preparation and delivery of speeches.

140. JOURNALISM PRACTICUM 1-3 cr. Prerequisite: permission of instructor. Reporting and editing for publication. Interviewing techniques, beat reporting, newspaper graphics, layout, and design. Students also learn the Apple Macintosh computer system as applied to journalism. Pass/Fail. May be repeated for a maximum of 3 credits.

- **145. DEBATE PRACTICUM 1-3 cr.** Prerequisite: permission of instructor. Credit for effective participation in forensic activities: preparation, research, and delivery and/or performance in debates. Requires participation in off-campus and weekend activities and prior debate experience or a demonstrated equivalency. Pass/Fail. May be repeated for a maximum of 3 credits.
- **150. RADIO PRACTICUM 1-3 cr.** Prerequisite: permission of instructor. Fundamental aspects of radio station organization and broadcast facility operation. Emphasis on the duties of and interrelationships among various departments at the broadcast station. Uses facilities of WJCU. Pass/Fail. May be repeated for a maximum of 3 credits.
- **155. PUBLIC RELATIONS PRACTICUM 1-3 cr.** Prerequisite: permission of instructor. Work on public relations campaigns, designing brochures, newsletters, and press releases. Pass/Fail. May be repeated for a maximum of 3 credits.
- **160. TELEVISION PRACTICUM 1-3 cr.** Prerequisite: permission of instructor. Effective participation in preparation and production of campus cable news program. Attendance at productions required; also, regular reports of progress, readings, and final paper. Pass/Fail. May be repeated for a maximum of 3 credits.
- **170. THEATRE PRACTICUM 1-3 cr.** Prerequisite: permission of instructor. Credit for effective participation in theatre productions; set construction, technical theatre, acting, backstage crew support. Participation in weekend and evening rehearsals required; attendance mandatory at all required rehearsals. Pass/Fail. May be repeated for a maximum of 3 credits.
- **180. PUBLIC SPEAKING PRACTICUM 1 cr.** Prerequisite: permission of instructor; prerequisite or corequisite: CO 100. Application of public speaking skills reflecting co-curricular experiences to be presented in community settings.
- **200. INTERPERSONAL COMMUNICATION 3 cr.** How people establish, maintain, and alter relationships with friends, strangers, work associates, and family members in professional, personal, cross-cultural, and social media contexts. Discussion and application to professional and personal settings of theories of interpersonal communication, the role of self-awareness and culture, perception, diversity, verbal and nonverbal messages, listening, conflict, power, and ethics in relationships.
- **201. INTRODUCTION TO COMMUNICATION RESEARCH 3 cr.** Increases knowledge and understanding of communication as an academic discipline. Focus on developing hypotheses, applying qualitative and quantitative research methods, developing competency in identifying useful resources, critically analyzing these resources, and creating clear and concise written and oral arguments.
- **215. FUNDAMENTALS OF BROADCAST PERFORMANCE 3 cr.** Analysis, interpretation, and communication of types of announcing performance areas: voice development, news presentation, interviewing, commercial delivery, and microphone and camera techniques. Applicable in public relations, sales, marketing, and similar fields. Uses Klein Television Studio.
- **220. AMERICAN ELECTRONIC MEDIA 3 cr.** Evolution of electronic media in the U.S. and their impact on society, economics, programming, technology, and convergence. Radio, TV, video, Internet, and social media.
- **225. JOURNALISM 3 cr.** Introduction to newsgathering and newswriting for print, broadcast, online, and social media. Uses Mac lab. Emphasis on developing and the information-gathering, research, and verification skills involved in news reporting.

- **226. SPORTS BROADCASTING (326) 3 cr.** Study and practical experience in all jobs necessary for live-to-tape broadcasts of John Carroll University sporting events. Students must be able to attend events on weekends.
- **235. BUSINESS AND PROFESSIONAL SPEAKING 3 cr.** Prerequisite: CO 100. Extension of the types of public speaking introduced in CO 100. Emphasis on demonstrations, business reports, persuasive and special occasion speeches. Writing manuscripts for speeches, using web technology and delivering and analyzing speeches. Presentations will be recorded.
- **245. ARGUMENTATIONAND DEBATE 3 cr.** Prerequisite: CO 100. Analysis of argumentation theory and its application in debates on significant contemporary problems. Consideration of propositions, issues, evidence, analysis, briefing, case construction, and refutation.
- **265. ORAL INTERPRETATION OF LITERATURE 3 cr.** Problems in analysis, criticism, interpretation, and communication of literature. Classroom performance in oral interpretation of various types of prose, drama, and poetry.
- **280. INTRODUCTION TO THEATRE 3 cr.** History and development of theatre arts from the ancient Greeks to the present. Detailed examination of the components of live theatre and the contributions of actors, directors, designers, playwrights, and critics to the creation of theatre. Requires attending area theatrical production.
- **285. ACTING FOR THE STAGE 3 cr.** Problems, basic performance, and rehearsal techniques for the actor. Practice in creative exercises and improvisations; studies in character development and physical/vocal work. Examination of historical development of the actor and theories of acting. Classroom performance/critique of scenes.
- **286. MEDIA LITERACY (386) 3 cr.** Examination of the interplay of media, self, information, and society to understand the role of media in shaping culture and social reality. Encourages the development of a critical approach to all mediated messages in a complex, information-based society.
- **300. SMALL GROUP COMMUNICATIONS 3 cr.** Small group theory, leadership, decision-making, and communication skills. Practical application of group-discussion concepts.
- **305. INTERVIEWING PRINCIPLES 3 cr.** Focus on survey/marketing, media, employment and sales interviews: analysis of theory, construction of questions, developing interview structure and evaluation. Application is emphasized, and students will participate both as an interviewer and interviewee.
- **308. LITERARY JOURNALISM 3 cr.** Prerequisite: CO 225. Writing and publishing in-depth features for newspapers, magazines, and books with emphasis on the study of classic works by Berner, McPhee, Thompson, Didion, and others.
- **314. THEATRE PRODUCTION 3 cr.** Prerequisite: CO 280. Introduction to theatre backstage production, including leadership. Aesthetic and practical aspects to the process of producing a play. Theory and technique in the use of computer equipment and the backstage process of production and technical support. Use of the promptbook. Backstage crew work on a show at several levels, including student leadership roles. Uses Marinello and Kulas Auditorium as laboratories.
- 315. INTRODUCTION TO INTEGRATED MARKETING COMMUNICATION (IMC)
- **3 cr.** Overview of IMC in order to understand the function of and connectivity among advertising, public relations, promotion, and interactive media as key components of the Marketing Mix. Students will establish e-portfolios and personal websites to use throughout the Integrated Marketing track.

- **316.** THE DOCUMENTARY IN FILM AND TELEVISION 3 cr. Rise of the documentary from pioneers through the work of Flaherty, Lorentz, Riefenstahl, Grierson, Murrow, Wiseman, and Burns, among others. Historical, informational, news, poetic, persuasive, and propaganda documentaries and techniques.
- **317. FILM AND COMMUNICATION 3 cr.** Rise of the American film industry with attention to the evolution of camera techniques, sound, and special effects. American classic films, directors, stars, and institutions from 1895 to 1960.
- **318. INTERNATIONAL FILM: SILENT TO MODERN ERA 3 cr.** Historical exploration of the development of film as an international phenomenon from its beginnings in France to the modern era. Historical background and related cultural elements in affecting the creation of films. Various film schools and directors are examined with attention to the evolution of styles and storytelling methods
- **319. VIDEO PRODUCTION 3 cr.** Prerequisite: CO 225. Development of video production in the field and studio. Emphasizes single-person field news reporting with web posting of work. Also studio program development, preplanning, and direction. Uses the Klein Studio.
- **320. AUDIO PRODUCTION 3 cr.** Prerequisite: CO 220 or permission of instructor. Fundamental theory and techniques in the use of audio equipment and basic audio production. Includes scripting, editing, and production of several program forms. Uses facilities of WJCU and O'Malley Center as a laboratory.
- **321. MINORITIES, STEREOTYPES, AND THE MEDIA 3 cr.** History, problems, roles, struggles, and contributions of major ethnic groups in the U.S. in relation to mass media. Stereotyping, access limitations, evolution of ethnic media, issues, and problems in American mass media systems. Africana Studies course.
- **322. WOMEN IN MASS MEDIA 3 cr.** Examines the historical contributions of women to the development of mass media and critiques the portrayal of women in the media and impact of that portrayal on society. Includes print, advertising, TV, film, photography, news, and alternative media. Women's and Gender Studies course.
- **323. MEDIA SALES AND MARKETING 3 cr.** Study of the sales and marketing function in commercial broadcast stations, networks, the Internet, and cable systems. Theory and application in media research sales, marketing, and promotion.
- **324. VIDEO GRAPHICS AND ANIMATION 3 cr.** Examines the aesthetic and practical dimensions of creating still-frame and animated images for the video screen. Students create graphics and animations, and learn techniques to enhance visual literacy and to "read" images more critically.
- **325. INVESTIGATIVE REPORTING 3 cr.** Prerequisite: CO 225. Process of doing major investigative and explanatory journalism projects with use of databases, original public records research, information-gathering interviews, and article writing.
- **330. PHOTOJOURNALISM 3 cr.** Prerequisite: CO 225 or permission of instructor; Corequisite: CO 331. Role of the photographer as communicator and as member of an editorial team at newspapers and magazines. Analysis of noted photojournalists and creative theory and art of photojournalism. Editorial decisions about the composing, editing, layout, and eventual publication of news and feature photos. Photo assignments and photo essays. Requires use of on-campus darkroom as a laboratory.
- 331. PHOTOJOURNALISM LABORATORY 1 cr. Corequisite: CO 330.

- **335. ILLUSTRATIVE PHOTOGRAPHY 3 cr.** Corequisite: CO 336. The art and science of magazine and advertising photography. Includes use of large-format cameras and color film.
- 336. ILLUSTRATIVE PHOTOGRAPHY LABORATORY 1 cr. Corequisite: CO 335.
- **341. AMERICAN VOICES 3 cr.** Uses of speech, video, film, song, and other forms of communication to build communities and to advocate for change. Special emphasis on social protest, from the Civil Rights movement through Occupy, the Tea Party, and Anonymous. Communication as a window on culture and political economy.
- **343. INTERNATIONAL THEATRE 3 cr.** Examines performance outside of Europe and the U.S. Topics range from Latin America and the Caribbean to Africa and Asia. History, critical theory, production methods, and plays of these theatres. Topics vary according to semester.
- **345. TOPICS IN NORTH AMERICAN THEATRE AND PERFORMANCE 3 cr.** History and critical analysis of theatre and performance in North America. Topics vary according to semester, but can range from Canadian, U.S., and Mexican/Chicano theatre to African-American theatre or popular theatres such as vaudeville and musical theatre.
- **346.** CAMPAIGN ISSUES AND IMAGES (445) 3 cr. Issues, images, and rhetorical and communication strategies of selected candidates in current political campaigns. Offered during the fall semester of election years.
- **355. MULTIMEDIA 3 cr.** Study of the thought processes and aesthetics in the production of multimedia from initial concept through development to actual construction. Encourages hands-on design and development skills using the latest industry-leading software tools. Special emphasis on the creation of real-world, portfolio-quality projects for print, video, the Web, and other communication channels.
- **365. DESIGN FOR THE STAGE 3 cr.** Prerequisite: CO 275. Aesthetic, practical, and process orientation to set, costume, and properties design for the stage. Includes drawing, drafting, and written analysis of plays and musicals. The process of this collaborative art is explored through group and individual projects. Basic drawing and drafting tools required.
- **375. DIRECTING FOR THE STAGE 3 cr.** Prerequisite: CO 265 or 280 or 285, or permission of instructor. Theory and practice of the director's function: play analysis, concept and interpretation, casting, rehearsing, staging techniques, using the promptbook. Examination of historical development of the director. Exercises in case studies and criticism. Classroom performance/critiques of scenes.
- **380. INTERNATIONAL JOURNALISM 3 cr.** Systematic, comparative study of the role of the press in foreign countries and the U.S. How the press operates within specific countries as well as how the identities of these countries are shaped through the media.
- **384. LIGHTING FOR THE STAGE 3 cr.** Prerequisites: CO 215; 275; 280. Aesthetic, practical, and process orientation to lighting design. Implementation for the stage and television, practiced through group and individual projects. Lab fee for drafting equipment.
- **389. SOCIAL ISSUES JOURNALISM 3 cr.** Prerequisite: CO 225. Researching and communicating social issues through journalism. Focus on use of data, interpreting and writing about public affairs, and examining how the news media report on social issues. Topics can include reporting on issues in healthcare, the environment, poverty, and immigration.
- **390. INTERCULTURAL COMMUNICATION 3 cr.** Prerequisite: CO 200. Basic concepts and theories of intercultural communication as applied to global and domestic contexts. Addresses issues of diversity, globalization, and social justice, communicative interactions, and

- power dynamics among people with different cultural, social, national, racial/ethnic, linguistic, historical, and religious backgrounds. Asian cultures serve as the basis for comparison.
- **395. PLAYWRITING (270) 3 cr.** Prerequisite: permission of instructor. The major elements of a dramatic work for theatre from page to stage. Students will learn the building blocks for writing a play; beginning, middle, and end and how to develop strong and interesting characters. Importance of subtext, format, and how to get a play published and performed. Required to write a one-act play and have it performed in front of an audience.
- **396. SCREENWRITING (295) 3 cr.** Prerequisite: permission of instructor. The art and craft of screenwriting and the creation of scripts for film. Basics of writing a screenplay, including motion picture structure, character development, and dialogue writing. Students will learn the correct screenwriting format and how motion pictures are written, filmed, and edited and the philosophy and business practices of the screenwriting profession.
- **397. WRITING FOR TELEVISION, RADIO AND NEW MEDIA 3 cr.** The principles, forms, and latest techniques for writing commercials; news and sports; features and documentaries; talk shows, music variety and comedy programs; education, corporate, and children's programs; and one-hour drama and half-hour sitcoms for network, cable, Internet, and local TV.
- **399. SEMINAR/SPECIAL TOPICS IN COMMUNICATION 1-3 cr.** Prerequisite: permission of instructor. Responsibility for this course rotates among department faculty, a new area of study being specified by each. Topic will be announced in the semester course schedule.
- **400. ORGANIZATIONAL COMMUNICATION 3 cr.** Examines communication within and between organizations in a global context. Focus on management/communication theory for motivating/leading organizations in corporate, non-profit, and government settings. Students will develop awareness of their individual leadership style. Specific application of these approaches on socialization, decision-making, conflict, change, creativity, workforce diversity, ethics, and organizational culture.
- **405. CONSULTING, TRAINING AND DEVELOPMENT 3 cr.** Focus on the role of the consultant, models of consulting, and methods of training in various corporate, government, and nonprofit settings. Students will produce a module of communication training.
- **407. CREATING FOR INTEGRATED MARKETING COMMUNICATION 3 cr.** Prerequisite: CO 315. Understanding and executing copy and design for advertising, public relations, broadcast, point-of-sale, and web. Students will evaluate the effectiveness of each medium, and develop an appreciation for compelling writing and visuals. Writing skill will be honed and APA Style considered a foundation.
- **410. EDITING AND DESIGN 3 cr.** Prerequisite: CO 225. Advanced study of theory and practice in presenting news, features, and other information in various formats, including print, broadcast, online, and social media. A senior-level course that sums up journalism studies, polishes skills in copy editing, instructs students in print and digital design, and examines future directions of communication media.
- **415. BRANDING 3 cr.** What is brand beyond an imprint on a cow's hindquarter? How do brands become successful and enduring? When do they fail? Use of case studies to evaluate the power of the brand. Students will be able to understand branding in the context of Marketing and the Media Mix.
- **417. INTEGRATED MARKETING CAMPAIGNS 3 cr.** Prerequisites: CO 315 and 407. Designing and pitching an integrated communications campaign for a campus or community client. Theory becomes practice as students develop strategic direction for an assigned client.

- **421. ADVANCED VIDEO PRODUCTION 3 cr.** Prerequisites: CO 319 and permission of instructor; corequisite: CO 422. Examination of aesthetic decisions and skills in planning and production of television programs. Exploration of editing theory using linear and non-linear systems based on both analog and digital approaches. Examines creative approaches to video development, using field facilities and the Klein Television Studio as laboratories.
- 422. ADVANCED VIDEO PRODUCTION LABORATORY (419) 1 cr. Corequisite: CO 421.
- **430/530. SEMINAR IN COMMUNICATION LAW AND POLICY 3 cr.** Analysis of case studies, media law, and government policy as they relate to the communication industry. Ethical implications will be discussed.
- **435. BROADCAST PROGRAMMING PRINCIPLES 3 cr.** Prerequisite: CO 220 or permission of instructor. Problems of broadcasting management, programming, sales, promotion, and marketing. Exploration of related issues in both commercial and noncommercial broadcast media.
- **438. MULTIMEDIA NEWS REPORTING 3 cr.** Prerequisite: CO 225. Focuses on the differences and similarities in reporting style, writing style, visual style, and production for news as presented on radio, TV, Internet, and cable news. Includes analysis of news content, ethical responsibilities of reporters and managers, and effects on society. Students will develop a news program for TV and Internet.
- **440. EVENT PLANNING 3 cr.** Prerequisite: CO 315. An understanding of, and experience with, the communicative strategies and behaviors associated with effective meetings, conferences, and special events. Draws on theoretical areas of communication to study effective planning, providing opportunities to integrate theory and application.
- **441. RHETORICAL THEORY AND CRITICISM 3 cr.** Prerequisites; EN 103 and EN 104/EN112, or EN 111 and EN 112, or EN 114 and EN 116. Analyzes rhetorical theory with emphasis on criticism of persuasive discourse found in a variety of texts, including speeches, novel, film, music, and campaigns. Theories and texts range from classical to contemporary.
- **446. PERSUASIVE COMMUNICATION THEORY 3 cr.** Theories of persuasi on and their applications to actual persuasive phenomena; persuasion viewed as imposition as social exchange, as a process of interpretation, and as embedded in cultural rules. Persuasion in political, mediated, corporate, and social contexts.
- **449. POLITICS, PUBLIC POLICY AND THE MEDIA 3 cr.** Prerequisite: CO 224 or PO 101. Analysis and critique of the dynamics between the news media, political groups, and the public and their effects on public policy. Historical perspective on selected campaigns with an emphasis on social, political, and economic shifts in American society.
- **450. COMMUNICATION THEORY 3 cr.** Explores the ways in which we make sense of communication, behaviors in performance, interpersonal, public, and mediated settings Theories seek to describe, explain, critique, and predict communication events and outcomes.
- **455. HEALTH AND ENVIRONMENTAL WRITING 3 cr.** Prerequisites: A laboratory science course and EN 103 and EN 104/112, or EN 111 and EN 112 or EN 114 or EN 116. Researching and communicating environmental and health issues through the media. Focuses on interpreting and writing scientific and technical information in an accessible way and understanding strategies of risk communication.
- **465. MEDIA ETHICS 3 cr.** Ethical theories and their application in media issues such as news story selection, Internet privacy, public relations, photography, art, and entertainment. Includes analysis of professional codes of ethics and extensive use of case studies.

- **467. COMMUNICATIONS AND THE FIRST AMENDMENT 3 cr.** Survey of major topics in media law in the U.S. with particular attention to the First Amendment and how its interpretation has evolved through landmark Supreme Court decisions. Includes segments on commercial speech, copyright, privacy, and international legal issues of importance to all communications professionals.
- **470. THEATRE HISTORY AND CRITICISM I 3 cr.** Survey of the theory and history of the theatre and drama from the Greeks to the 19th century. Relationship between the theatre and the social and aesthetic values of its time.
- **471. THEATRE HISTORY AND CRITICISM II 3 cr.** Survey of the theory and history of the theatre and drama in the late 19th, 20th, and early 21st centuries. Relationships between the theatre and the social and aesthetic values of its time.
- **475. LITTLE THEATRE WORKSHOP 3 cr.** Prerequisites: prior participation in Little Theatre Workshop productions, and permission of instructor. Specified problems of an advanced nature in playwriting, acting, directing, designing, and management. Concentration on the growth of the student as an artist in the theatre. Requires a major project and research analysis. Required work in Little Theatre Workshop productions.
- **476.** LITTLE THEATRE WORKSHOP, DESIGN, AND MANAGEMENT 3 cr. Prerequisites: CO 275, 365; prior participation in Little Theatre Productions; and permission of instructor. Concentration on the growth of the student as an artist in the theatre. Requires major project, research analysis, and appropriate technical drawings. All work in Little Theatre Workshop productions.
- **495. SENIOR CAPSTONE IN COMMUNICATION STUDIES 3 cr.** Required of all majors in their senior year. Students complete a comprehensive communication project or research study under the direction of faculty. Based on knowledge and skills acquired through education and experience as a communication major. Includes presentation.
- **497. INTERNSHIP 3, 6 cr.** Prerequisites: senior standing; normally at least 2.5 overall average. Open only to majors. Permission of internship director required. Supervised and directed experiential learning in a position relevant to a major sequence of study. Pass/Fail. No more than 3 credits may be applied toward completion of the major.
- **499. INDEPENDENT STUDY 1-3 cr.** Prerequisites: CO major; permission of instructor and chair. Particular problem in communication examined in depth. Final paper and oral examination. Projects must be approved prior to registration. Consult chair for details.



Computer Science (CS)

Professors: P. L. Shick (Chair), D. W. Palmer, M. Kirschenbaum; Associate Professors: D. L. Stenson, L. M. Seiter; Visiting Assistant Professor: V. E. Lee

Major Programs

The Department of Mathematics and Computer Science offers two major programs in computing: a Bachelor of Science in Computer Science and a Bachelor of Science in Computer Information Systems. Both majors have a common set of core courses for the first two years of study, preparing students with a strong foundation in software programming and application development. The two majors diverge for the upper-level courses, with computer science majors acquiring a strong understanding of how and why technology works, while computer information systems majors focus on learning how to apply technology to solve complex business problems. The department also offers mathematics (MT) programs that are described in a separate section.

Technology is becoming an increasingly integral part of everyday life. It influences the music we enjoy, the medical advances we rely upon, the way we communicate, and how we do business. An understanding of technology is a vital skill set for an educated person in this century. Technology drives innovation in all of the sciences and business, as almost every significant challenge facing the world turns to computing as an aid to a solution.

The major in **Computer Science** leading to the Bachelor of Science prepares students for a career in technology, as well as graduate study in computer science. Computer science careers span the spectrum of possibilities: from working for national companies with large, well-established technology departments to founding entrepreneurial start-up companies at the frontier of future technology to filling critical support roles in virtually all possible fields, including medicine, business, manufacturing, consulting, government, law, and research.

The major in **Computer Information Systems** leading to the Bachelor of Science enables students to understand, manage, and apply technology within the realistic constraints of an ever-changing marketplace. Graduates of the program play a critical role in the future of business, the economy, and social interactions by designing new forms of communication and online business communities.

Major and Minor Requirements

Major in Computer Science: 46 hours. CS 125, 128, 128L, 150, 225, 228, 242, 270, 328, 470; one of the following MT courses: 118, 122, 130, 135, or 167 (or another MT course with permission of department); two CS courses chosen from the following list: CS 333, 360, 428, 464, 477; three additional CS courses at or above the 300 level.

A comprehensive examination is required.

Major in Computer Information Systems: 46 hours. CS 125, 128, 128L, 150, 225, 228, 242, 270, 345, 350, 470, 475; one of the following MT courses: 118, 122, 130, 135, or 167 (or another MT course with permission of department); three additional CS courses at or above the 300 level.

A comprehensive examination is required.

Minor in Computer Science: 22 hours. CS 125, 128, 128L, 150, 225, 228; one additional CS course at or above the 200 level; one of the following MT courses: 118, 122, 130, 135, or 167 (or another MT course with permission of department).

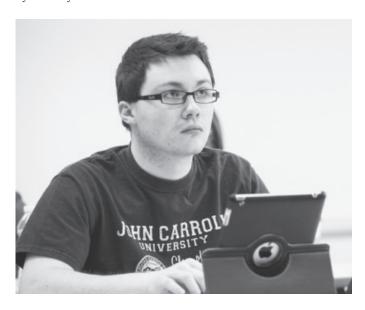
Track in Healthcare Information Technology: Open only to CS or CIS majors. CS majors must take CS 312, 475HC, and 476 as their upper-level electives. CIS majors must take CS 312 and 476 as two of their upper-level electives and substitute CS 475HC for CS 475. Both majors must substitute CS 470HC for CS 470 and, if qualified, take CS 478 (the healthcare information technology internship.) Students not meeting the minimum requirements for the internship must take an additional 3 credits to be arranged with the chair.

- **125. INTRODUCTION TO WEB DESIGN AND IMAGE PROCESSING 3 cr.** Principles of website design and creation. Software applications such as Dreamweaver, Fireworks, and Flash are used to introduce students to HTML, cascading style sheets, templates, image processing, and animation. Students will use these tools to create their own website.
- **128. INTRODUCTION TO SOFTWARE APPLICATION DEVELOPMENT 3 cr.** Corequisite: CS 128L. Fundamentals of computing with an emphasis on mobile technology. Utilizes a visual programming environment to design, build, and test mobile apps. Introduction to application development, inquiry-based simulation, rapid prototyping, incremental problem solving and graphical user interface programming.
- **128L. INTRODUCTION TO SOFTWARE APPLICATION DEVELOPMENT LABORATORY 1 cr.** Corequisite: CS 128. Programming laboratory intended to provide handson experience in applying the programming concepts learned in CS 128. Experience in learning the process of program development, with emphasis on techniques for testing and debugging.
- **144. SOFTWARE ANIMATION AND MODELING 3 cr.** Fundamentals of computational thinking using a graphic interface language such as Scratch; fundamentals of applied logic and algorithmic thinking; designing and implementing mathematical models of scientific and social phenomena.

- **150. DATABASE SYSTEMS 3 cr.** Data modeling, database design, data definition and manipulation language (SQL), entity-relationship model, normal form. Relational database system software. Emerging topics such as XML and web data management.
- **225. ADVANCED WEB DESIGN 3 cr.** Prerequisites: CS 125, CS 128, CS 150. Design and development of distributed Internet applications and dynamically generated websites. Integration of web and database technology. Exploration of popular web frameworks and APIs such as .NET, Google API's, and AJAX.
- **228. OBJECT-ORIENTED DESIGN AND PROGRAMMING 3 cr.** Prerequisite: CS 128. Prerequisite/corequisite: MT 118 or MT 122 or MT 135 or MT 167. Continuation of CS 128 emphasizing the benefits of object-oriented languages: modularity, adaptability, and extensibility. Object-oriented programming concepts include objects, classes, methods, constructors, message passing, interfaces, inheritance, and polymorphism.
- **242. COMPUTATIONAL MODELING 3 cr.** Prerequisite: CS 228. Models for representing different aspects of software, including its structure, execution, and evolution. Topics include algorithm analysis and visualization, software models and simulation, UML diagrams, introduction to formal languages and automata, graph algorithms, software testing and coverage, and number representation.
- **270. SOFTWARE DEVELOPMENT PRACTICES 3 cr.** Prerequisite: CS 228. Prerequisite/ corequisite: CS 242. Skills, tools, and techniques necessary for successful software engineering projects in a hands-on, project-oriented context. Students will work on development efforts that each focuses on a different set of tools and techniques. Topics include system design, UML diagrams, unit testing, system testing, continuous integration, refactoring, performance and optimization, acceptance testing, and code maintenance.
- **299. INDEPENDENT STUDY IN COMPUTER SCIENCE 1-4 cr.** Prerequisites: permission of chair and faculty member. Independent study under the supervision of a faculty member.
- **307. BIOINFORMATICS 3 cr.** Prerequisite: CS 128. The application of computational methods and principles to solve data-intensive and pattern-discovery problems in biology, especially molecular and systems biology, without prior knowledge of computer programming or college-level biology. Topics may include gene sequence assembly, sequence alignment, phylogenetic tree inference, gene expression, and protein interaction networks.
- **312. HEALTHCARE INFORMATION TECHNOLOGY 3 cr.** Prerequisite: CS 270. Explores development, tools, and technology specific to healthcare information. Examples include: the HL7 information protocol, electronic medical records, HIPAA issues and practices for developers. DICOMM standard for storage and manipulation of medical images, database storage, archiving and network requirements and protocols, security, data access, data maintenance, and backup practices and related software development issues.
- **328. ADVANCED PROGRAMMING 3 cr.** Prerequisite/corequisite: CS 242. Advanced object-oriented programming: exceptions, threads, synchronization, serialization; Data Structures/Collection API's. Introduction to algorithms and analysis of algorithms. Graphical User Interface APIs.
- **330.** E-COMMERCE AND ENTERPRISE COMPUTING **3** cr. Prerequisite: CS 228. Advanced web programming and design, web application frameworks such as Ruby On Rails, J2EE architecture. Enterprise Object Models; Web 2.0 technologies, Ajax, Portals, E-Commerce frameworks and architectures

- **333. ROBOTICS 3 cr.** Prerequisite: CS 228. Foundations of robotics concepts and implications. Hands-on construction programming of robots to perform specific tasks. Primary focus will be on managing the real-world inexactness that robots must contend with. Multi-robot systems including simulation, cooperation, coordination, and redundancy. Conceptual and practical aspects of robotics.
- **345. SOCIAL COMPUTING 3 cr.** Prerequisites: CS 225, 242. Introduction to a variety of Internet-enabled information technologies and concepts involving the interactions of large numbers of people. These include social networking sites, blogs, RSS, podcasting, wikis, social bookmarking tools, photo sharing tools, e-communities, mapping tools, participating in and programming of virtual worlds, and grid/cloud computing. Exploration of popular frameworks and APIs for managing social graphs and supporting community collaboration.
- **350. ADVANCED DATABASE SYSTEMS 3 cr.** Prerequisite: CS 225. Prerequisite/corequisite: CS 242. Alternative data models and advanced database techniques, Big data support, Web-DBMS integration technology, data-warehousing and date-mining techniques, database security and optimization, and other advanced topics.
- **360. GAME DESIGN AND PROGRAMMING 3 cr.** Prerequisite: CS 270. Exploration of game engine(s) and computer techniques that create both animated imagery of objects and interactive agent behavior, including artificial intelligence concepts. Graphical and game design followed by implementation via a large-team development of a class-designed game.
- **380. SPECIAL TOPICS IN PROGRAMMING 1-3 cr.** Prerequisite: dependent on topic. Investigations of emerging programming technologies and paradigms.
- **399. INDEPENDENT STUDY IN COMPUTER SCIENCE 1-4 cr.** Prerequisites: permission of chair and faculty member. Designed for the student who wants to undertake a research project supervised by a faculty member.
- **428. NETWORK PROGRAMMING 3 cr.** Prerequisite: CS 228. Prerequisite/corequisite: CS 242. Study of various network protocols such as TCP/IP. Topics may include network topology; routing algorithms; network addressing; Ethernet with collision detection; the use of analytical tools for network analysis and design; client/server model; threading/synchronization as well as socket programming.
- **445. MOBILE TECHNOLOGY 3 cr.** Prerequisites: CS 225, 242. Mobile frameworks and tools, Text-to-Speech techniques, multimodal user interfaces, intents and services, storing and retrieving data, synchronization and replication of mobile data, mobile agents and communications.
- **464. OPERATING SYSTEMS 3 cr.** Prerequisite: CS 242. Memory management, scheduling, mutual exclusion and semaphores, deadlock, scripting using Linux; also, the use of modules and recompiling the Linux kernel to alter the Linux operating system.
- **470. SOFTWARE ENGINEERING PROJECT 3 cr.** Prerequisites: senior CS or CIS major, CS 270. Simulation of the environment of the professional software developer working in a team on a large software project for a real client or for an open-source community. Development teams will make widespread use of previously learned tools and techniques. Student developers will encounter a wide variety of issues that naturally occur in a project of scale, using their skills, ingenuity, and research abilities to address all issues and deliver a working, useful system. Traditional or Agile development methodologies.
- **470HC. SOFTWARE ENGINEERING HEALTHCARE PROJECT (CS 470) 3 cr.** Prerequisites: senior standing in the Healthcare Information Technology track, CS 270, CS 312. Students in the Healthcare IT track will be required to develop a large software project related to Healthcare IT using the same methodologies and techniques as described in CS 470.

- **475. TECHNICAL WRITING IN COMPUTER SCIENCE 3 cr.** Prerequisite: CS 228. Written communication related to computer science emphasizing clear, concise expression of technical information. Exploration of several types of CS writing, including users' guides, help pages, tutorials, mainstream articles, and technical papers. Students read and analyze sample pieces; write, edit, and revise their own and critique other students' work.
- **475HC TECHNICAL WRITING IN HEALTHCARE IT (CS 475) 3 cr.** Prerequisites: participation in the Healthcare Information Technology track, CS 228. Application of the written communication skills described in CS 475 to healthcare IT topics. In addition, HIPAA training and medical terminology will be covered and used in writing requirements.
- **476. SYSTEMS TECHNOLOGY AND PRACTICES SEMINAR 3 cr.** Prerequisite: CS 270. Features a weekly guest speaker from the information technology profession, including the healthcare information technology field. The instructor will provide foundational material prior to each talk and analyze it with the class afterwards. Students will develop individual, self-designed projects based on a speaker's topic.
- **477. DESIGN PATTERNS 3 cr.** Prerequisite: CS 242. Object-oriented design skills and techniques. Surveys all 23 "canonical" design patterns catalogued by Gamma et al, and the creational, structural, and behavior classes of patterns. Variations of these patterns, how and where to apply them, and using them together to build larger, more maintainable programs.
- **478. HEALTHCARE TECHNICAL INTERNSHIP 3 cr.** Prerequisites: senior standing in the Healthcare Information Technology track, CS 470HC, and permission of department chair. Highly individualized, culminating experience for students in this track. Focuses on an information technology-related challenge that has been designed and approved by the MT/CS faculty and a healthcare professional.
- **480. SPECIAL TOPICS cr. TBA.** Reading, reports, research on selected material and topics.
- **499. INDEPENDENT STUDY IN COMPUTER SCIENCE 1-4 cr.** Prerequisites: permission of chair and instructor. Designed for the student who wants to undertake a research project supervised by a faculty member.



East Asian Studies (EA)

The East Asian Studies Program is coordinated by the East Asian Studies Advisory Committee, faculty members of which are appointed for limited terms by the appropriate dean. As of the printing of this *Bulletin*, members include:

Program Director

Keiko Nakano, M.A., Assistant Professor of Japanese

Committee Members:

- Yuh-Cherng Chai, Ph.D., Associate Professor of Chemistry
- Bingje Huang (2013-2014), Confucius Classroom Instructor in Chinese
- Peter Kvidera, Ph.D., Associate Dean, College of Arts and Sciences, and Associate Professor of English
- Bo Liu, Ph.D., Assistant Professor of Art History and Humanities
- Susan Orpett Long, Ph.D., Professor of Anthropology
- Pamela A. Mason, Ph.D., Associate Professor of Political Science
- Huiyuan Mei (2013-2014), Confucius Classroom Instructor in Chinese
- Paul K. Nietupski, Professor of Theology and Religious Studies
- Martha Pereszlenyi-Pinter, Ph.D. (ex officio), Chair, Department of Classical and Modern Languages and Cultures, and Associate Professor of French
- Roger W. Purdy, Ph.D., Associate Professor of History
- Jie Zhang, M.A., Associate Librarian

Major and Minor Requirements

East Asian Studies Major: 36 credits

The East Asian Studies (EAS) major offers a flexible course of study leading to the Bachelor of Arts (B.A.) that can help prepare students for graduate and professional study and careers in business, government, education, the arts, medicine, the sciences, including computer science, and law, among other areas. The EAS major can be combined with a second major or minor from another discipline.

Students majoring in EAS complete at least 36 credits (twelve courses) in EAS-approved course work from across the University curriculum, including foundational language training, course work that examines East Asia as a region, and more intensive and/or specialized studies. Distribution of courses in the EAS major is as follows:

- 1. Four courses in Chinese or Japanese language. Normally these include the 100-200 level sequence of language courses.
- 2. Eight additional EAS-approved courses in at least three different disciplines, including:
 - a. One course that examines an aspect of East Asia as a region (normally, but not always, at the 100-200 level) or that examines a country in East Asia other than the country whose language the student is studying.
 - b. Three courses at the 300-400 level, including any language courses beyond the four courses required above.
 - c. One 400-level capstone course. The capstone may involve a traditional research paper, internship, or some other structured project that ties together the student's EAS course work and reflects upon the student's experience in the EAS major. The capstone encourages students who are double majors to synthesize and reflect upon both courses of study.

East Asian Studies Minor: 24 credits

Students in any major may pursue the East Asian Studies minor in order to deepen their understanding of this important world region. Students in the minor choose either the **Language Track**, which emphasizes Chinese or Japanese language, or the **Interdisciplinary Track**, which provides a broader interdisciplinary approach to the study of East Asia, including one year of Chinese or Japanese language.

The EAS minor consists of 24 credits, normally eight courses, distributed as follows:

1. Language Track:

- a. Six courses in Chinese or Japanese language.
- b. Two additional EAS-approved courses in two different disciplines.

2. Interdisciplinary Track:

- a. Two courses in Chinese or Japanese language, normally the introductory course sequence.
- b. One course that examines an aspect of East Asia as a region, normally but not always at the 100-200 level.
- c. Five additional EAS-approved courses in at least three different departments.

Study Abroad and Exchange

EAS students are strongly encouraged to participate in short-term, semesterlong, or year-long study abroad programs, especially ones that include language study, in East Asian countries.

In China, our students take part in year-long, semester-long, and summer programs at the Jesuit consortium Beijing Center for Chinese Studies, of which John Carroll University is a founding member.

In Japan, our students can choose between year-long or summer exchange programs offered by Sophia University in Tokyo or Nanzan University in Nagoya, or semester-long study abroad at Kansai-Gaidai University, near Osaka.

Detailed, up-to-date information about John Carroll study opportunities in China and Japan can be found on the EAS website: www.jcu.edu/eas.

Up-to-date information about additional study abroad and exchange opportunities in East Asian countries is available through the Center for Global Education at http://sites.jcu.edu/global/. The Center for Global Education also maintains current information on costs related to study abroad and exchange.

East Asian Language Courses at John Carroll University

JP 101-102 Basic Japanese

JP 201-202 Intermediate Japanese

JP 301-302 Advanced Japanese

JP 398-498 Supervised Study and Advanced Supervised Study

CN 101-102 Basic Chinese

CN 201-202 Intermediate Chinese

CN 301-302 Advanced Chinese

CN 398-498 Supervised and Advanced Supervised Study

Select East Asian Studies-Approved Courses

Course availability and offerings vary from semester to semester and year to year. For complete and up-to-date listings of EAS-approved courses, go to the EAS website, www.jcu.edu/eas, or the class schedule published by the Registrar's Office. Course descriptions can be found in the department sections of this *Bulletin*.

Students may petition for relevant courses taken during East Asian study abroad/ exchange to count toward the EAS major. Documentation, including course description and detailed syllabus, is required for such petition.

Courses in any discipline with significant East Asian content may be counted toward the EAS major. Students must formally petition the EAS director for permission to count such courses toward the major. Documentation, including course description and syllabus, is required for such petition.

Special Study Programs: Each year, EAS sponsors a special interdisciplinary study program with a study tour to East Asia. Current programs include:

- Even-numbered years: Japanese Society and Culture
- Odd-numbered years: China in Transition

These programs typically carry 3-6 credits at the 300 level and are cross-listed in the departments of participating faculty. Program emphasis and details change from year to year. For complete, up-to-date information on these programs and study tours, contact eas@jcu.edu and visit the EAS website at www.jcu.edu/eas.

East Asian Studies (EA) Courses:

198. SPECIAL TOPICS IN EAST ASIAN STUDIES 1-3 cr. Topic will be listed in the semester class schedule.

199. PRESENTATIONS ON EAST ASIA 1 cr. Further development of a paper or project completed for an EAS course or study abroad experience and intended for presentation at John Carroll's annual *Celebration of Scholarship* or other appropriate forum. Pass/Fail.

298. SPECIAL TOPICS IN EAST ASIAN STUDIES 1-3 cr. Topic will be listed in the semester class schedule.

299A. INDEPENDENT STUDY 1 cr. Prerequisite: permission of instructor. Directed reading or individual research.

299B. INDEPENDENT STUDY 2 cr. Prerequisite: permission of instructor. Directed reading or individual research.

299C. INDEPENDENT STUDY 3 cr. Prerequisite: permission of instructor. Directed reading or individual research.

398. SPECIAL TOPICS: CHINA 3-6 cr. Prerequisite: permission of instructor. Typically includes faculty-led, short-term study tour, at additional cost to students. Since topics vary, students may register for more than one semester with the consent of their academic advisor. Depending on course content, students may petition for appropriate Core credit.

490. CAPSTONE COURSE IN EAST ASIAN STUDIES 3 cr. Prerequisite: senior standing and permission of EAS director. A project that ties together the student's EAS course work and reflects upon the student's experience in the EAS major. Required to complete the major.

Economics (EC)

Professors: F. J. Navratil, T. J. Zlatoper, L. D. Brooks, W. O. Simmons (Chair); Associate Professors: L. R. Cima, L. N. Calkins (Associate Dean), A. M. Welki, S. K. Kahai; Visiting Assistant Professor: S. Lim; Executive-in-Residence: A. Aveni

The primary goal of the economics faculty is to provide its students, the University, and the community with an understanding of economic theory and practice through quality teaching and advising, significant research, and appropriate community involvement.

The general goals of the economics program are to develop the following qualities in our students:

- Proficiency in the use of the language of economics in both written and oral form based on knowledge and understanding of economic theory and practice.
- Cultivation of critical thinking skills and development of a logical, ordered approach to problem solving.
- Ability to apply the scientific method to problems in social science research.
- Preparedness for graduate study in economics, and for transition into the workforce.
- Understanding of the historical significance of economics and its continuing contribution to social outcomes.
- Ability to evaluate positive and normative economics within the context of their moral and spiritual principles.

Economics is the study of scarcity, choice, and efficiency. As British economist Alfred Marshal wrote, "Economics is a study of mankind in the ordinary business of life." As such it draws on history, philosophy, and mathematics to address such diverse topics as product and resource pricing, inflation, unemployment, interest-rate determination, environmental issues, and federal government expenditure and taxation policies. In addition, the theories and models of economics have been applied to non-traditional areas, including marriage, child-rearing, criminal behavior, discrimination, and ethics.

Major and Minor

Economics is considered one of the most flexible of all the potential fields of undergraduate study for two reasons. First, students can choose to major in economics either through the College of Arts and Sciences (Bachelor of Arts), or through the Boler School of Business (Bachelor of Science). Second, a major in economics provides a

comprehensive base for a variety of academic and professional fields. It is an ideal preparation for careers in business and for many graduate programs. Economics majors find employment in banking and other financial institutions, sales, consulting firms, government service, and teaching. In addition, many graduate programs—most notably law, business administration, and economics—regard the study of economics to be particularly beneficial because of its logical, ordered approach to problem solving.

Furthermore, the study of economics—the only social science honored by its own Nobel Prize—is intellectually challenging and rewarding. Economists use the scientific method to develop and test hypotheses and with their findings address vital current issues.

Students who choose to major in economics through the College of Arts and Sciences may apply to the department after completing EC 201-202. Acceptance as a major requires a 2.0 cumulative grade-point average and a 2.0 grade-point average in previous course work in economics.

Major and Minor Requirements

Bachelor of Arts in Economics: 34 credits hours. EC 201-202, 207 (or waiver), 208, 301, 302, 499, and 15 additional upper-division hours.

Required Support Courses: 3 hours. MT 130. Students planning to pursue graduate work in economics are urged also to take MT 135-136.

B.A. students are urged, but not required, to take additional courses in the Boler School of Business, especially a year-long sequence in accounting. Additionally, students planning to pursue graduate work in economics should take EC 409, 410, and a course in linear algebra.

Bachelor of Science in Economics: 64-67 credit hours.

Business Core: 43-46 hours, including EC 499, and MN 461 or MN 463-464.

Major courses: 21 hours, including EC 301, 302, with 15 hours in upperdivision economics in addition to EC courses required in the business core.

All majors must take an economics comprehensive examination during senior year, which will count for a portion of the EC 499 grade. Consult the department for details.

Minor in Economics: 18 hours. EC 201-202 plus 12 credit hours at the 300 or 400 level.

Interdisciplinary Concentrations

- 1. International Economics/Modern Languages—offered in conjunction with the Department of Classical and Modern Languages and Cultures.
- 2. International Business—offered in conjunction with the other academic disciplines of the Boler School of Business and the Department of Classical and Modern Languages and Cultures.
- 3. Mathematics and Economics—offered in conjunction with the Department of Mathematics and Computer Science and strongly recommended for those who plan to do graduate work.
- 4. Public Administration and Policy Studies—offered in conjunction with the Department of Political Science.

Students interested in one of these concentrations should see the section in this *Bulletin* on interdisciplinary minors and concentrations (pages 83-90) or, for any of them, the chair of one of the departments involved.

- **101. INTRODUCTION TO ECONOMIC PROBLEMS AND POLICIES 3 cr.** Survey of selected current socioeconomic issues and problems: market structure, costs and competition, international trade, environmental concerns, economic growth, financial panics, inflation, and unemployment. Use of fundamental economic concepts and basic tools of economic analysis. This course cannot be used as part of an economics major, the business core for business majors, or the business minor.
- **201-202. PRINCIPLES OF ECONOMICS I, II 3 cr. each.** Economic principles and problems. 201 (Microeconomics): the nature of economics and its method, the economic problem, demand and supply analysis, costs of production, market structures, product and resource pricing, and international trade. 202 (Macroeconomics): economic goals, basic information about the American economy, national income accounting, international finance, theories of income determination, economic growth and instability, money and banking, monetary and fiscal policy, the public debt, and selected economic problems. Algebra is used throughout both courses.
- **207. BUSINESS AND ECONOMIC STATISTICS 1 cr.** Prerequisite or corequisite: MT 130. Descriptive statistics, probability and probability distributions, sampling, and sampling distributions.
- **208. BUSINESS AND ECONOMIC STATISTICS II 3 cr.** Prerequisites: MT 167, or a calculus course (MT 130, MT 133-134, or MT 135) and a statistics course (MT 122, EC 207, EC 208L, or competency waiver). Hypothesis testing, chi-square analysis, analysis of variance, correlation, bivariate and multivariate regression analysis, time series, and index numbers. Some student assignments will utilize the computer.
- **299. SPECIAL TOPICS 1-3 cr.** Specialized focus in selected areas of economics. May also include independent study work.
- **301. MICROECONOMICS 3 cr.** Prerequisites: EC 201-202 and a calculus course (MT 130, MT 133-134, MT 135, or MT 167), or permission of chair. Detailed analysis of the behavior of consuming and producing units, determination of prices and outputs through the market, resource allocation and distribution. Problems of decision making and planning.

- **302. MACROECONOMICS 3 cr.** Prerequisites: EC 201-202 and a calculus course (MT 130, MT 133-134, MT 135, or MT 167), or permission of chair. Theories of the determination of the level of national economic activity: output, income, employment, and its relationship to economic growth, stability, and the price level. Particular emphasis on the components of aggregate demand and aggregate supply.
- **311. MONEY AND BANKING 3 cr.** Prerequisites: EC 201-202. Money and credit; historical and institutional development of the U.S. financial system; monetary theory; policies of financial regulators.
- **312. ECONOMICS OF THE PUBLIC SECTOR 3 cr.** Prerequisites: EC 201-202. Theoretical and empirical analysis of public (government) expenditures and taxation. Topics include welfare economics, public goods, externalities, theories of distributive justice, income taxation, tax incidence, taxation and efficiency, and some discussion of public choice theory.
- **315. ENVIRONMENTAL ECONOMICS 3 cr.** Prerequisites: EC 201-202. Designed to acquaint students with analytical tools of environmental economics, including cost-benefit analysis, user charges, rationing of scarce resources, investment allocation criteria, and public expenditure criteria.
- **321. LABOR AND HUMAN RESOURCE DEVELOPMENT 3 cr.** Prerequisites: EC 201-202. Examines the organization, functioning, and outcomes of labor markets; the decisions of prospective and present labor market participants; and public policies that relate to the employment and payment of labor resources. Typical topics include determination of wages, prices, profits; individual human capital acquisition and labor supply decisions; labor unions and collective bargaining; labor law and public policy; contemporary issues such as discrimination, immigration, and health.
- **331. INDUSTRIAL ORGANIZATION AND PUBLIC POLICIES 3 cr.** Prerequisites: EC 201-202. Analysis of imperfectly competitive markets, focusing on the interactions among market structure, firm behavior, and market outcomes. Topics include a review of market structures, firm motives, measures of concentration, merger theory and policy, barriers to entry, monopolization, oligopoly models, pricing strategies, vertical strategies, market power, game theory, collusion and cartel theory, technological progress, and antitrust legislation.
- **332. ECONOMICS OF REGULATION 3 cr.** Prerequisites: EC 201-202. Application of economic theory and techniques to regulated industries and public utilities. Recent developments in regulated industries and deregulation. Focus on the making of economic theory regulation, brief history of economic regulation, the regulatory process, capture theory, natural monopoly regulation, traditional rate-of-return regulation, incentive regulation, dynamic issues in natural monopoly regulation, telecommunications regulation, regulation of potentially competitive markets, theory of price and entry/exit regulation, methods for estimating the effects of regulation, and economic regulation of transportation.
- **342. INTERNATIONAL ECONOMICS 3 cr.** Prerequisites: EC 201-202. International trade theory, commercial policy, and economic interdependence. Exchange rates and the foreign exchange market, the balance of payments, parity conditions, and the international monetary system.
- **343. ECONOMIC DEVELOPMENT 3 cr.** Prerequisites: EC 201-202. Theoretical and policy issues in economic growth and development with emphasis on specific country policies and experience; alternative development paths; problems of development planning; policies for achieving growth and development in emerging countries; and conditions necessary for continued growth in advanced countries.

- **345. ECONOMIC HISTORY OF THE UNITED STATES (HS 345) 3 cr.** Prerequisites: EC 201-202. Growth of the U.S. economy from colonial times to post-World War II period. Development of transportation, commerce, labor, agriculture, industry, money and banking; economic and political issues and the increasing role of government in the economy.
- **352. COMPARATIVE ECONOMIC SYSTEMS 3 cr.** Prerequisites: EC 201-202. Examines the major economic systems of the world in both theory and practice. Focuses on a general understanding of how economic systems work and how economic theory interacts with government policy, history, and culture to explain economic performance in capitalist regulated markets, socialist regulated markets, socialist centrally planned economies, transitional economies, and other emerging economic systems.
- **361. URBAN AND REGIONAL ECONOMICS 3 cr.** Prerequisites: EC 201-202. Application of analytical techniques of economic theory to urban and regional problems. Economic rationale of cities, urban and regional growth and development, classical location theory, analysis of urban markets, and policy approaches to urban and regional problems.
- **405. SEMINAR IN ECONOMICS 3 cr.** Prerequisites: EC 201-202, and/or as announced. Contemporary issues in economics not covered in depth in other departmental courses. Specific topic, method of presentation, and student requirement designated by the seminar leader. Examples might include, but are not limited to, the portfolio approach to exchange rates and the balance of payments; alternatives to standard international trade models; causes and consequences of income and wealth inequalities.
- **409. MATHEMATICAL ECONOMICS 3 cr.** Prerequisites: EC 201-202, and MT 130 or MT 135 or MT 133-134; or permission of chair. Economic analysis from a mathematical perspective. Static equilibrium analysis, comparative statics, and optimization using matrix algebra and calculus.
- **410. ECONOMETRICS 3 cr.** Prerequisites: EC 201-202 and 208; or permission of chair; recommended: EC 301 and/or 302 and 409. Building econometric models, understanding different econometric methods, and estimating models using computer packages.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: economics major with an overall G.P.A. of 3.0 or higher; permission of chair and instructor. Research project supervised by a department member willing to act as advisor. The student selects an aspect of economics, establishes goals, and develops a plan of study. Plan must be approved by chair and filed with the dean's office. Consult chair for departmental guidelines established for such study.
- **499A. INDIVIDUAL RESEARCH PROJECT IN ECONOMICS I 0 cr.** Prerequisites: economics major; senior standing or permission of chair. The preliminary stages of an integrative senior seminar for all economics majors, including topic identification and development for the senior research project, and preparation for the economics comprehensive examination (MFAT). Offered fall semester only.
- **499B. INDIVIDUAL RESEARCH PROJECT IN ECONOMICS II 3 cr.** Prerequisite: satisfactory completion of EC 499A or permission of chair. Completion of a faculty-supervised research project, including multiple drafts and a presentation of the student's work. Offered spring semester only.

Education and Allied Studies (ED)

Professors: A. R. Hoffman, K. A. Roskos, P. J. Britton, C. A. Rosemary (Interim Chair);
Associate Professors: T. E. Kelly, K. M. Manning, J. E. Jenkins, M. G. Storz (Associate Dean),
D. Shutkin, G. A. DiLisi, J. L. Rausch, R. A. Allen; Assistant Professors: N. P. Taylor, L. M. Shoaf, T. Ford, A. Moses, C. Brennan, Y. Shang, N. C. Gehlert, M. T. Connell, S.J.

The mission of the Department of Education and Allied is to provide educational leadership for a more just society in schools and community agencies. This mission is grounded in the Jesuit mission of the University and Jesuit history. The meaning and scope of the mission reflect all professional preparation programs housed within this academic unit.

To achieve its mission the department is committed to the following goals:

- To provide professional education in a liberal arts context.
- To foster a respectful, inclusive learning community sensitive to all dimensions of diversity.
- To focus on personal as well as professional development of the individual.
- To emphasize teaching that is anchored in a strong research base.
- To instill the Jesuit ideal of an educator in our candidates.

The teacher education program, which comprises the undergraduate level of the department's program, is accredited by the National Council for the Accreditation of Teacher Education (NCATE), approved by the Ohio Board of Regents (OBR), and designed to fulfill the standards for Ohio teacher licensure.

The teacher education program prepares candidates for careers in one of four licensure areas:

Early Childhood, Pre-K to 3rd grade

Middle Childhood, 4th grade to 9th grade

Adolescent/Young Adult, 7th grade to 12th grade

Multi-Age, Pre-K to 12th grade

To qualify for the four-year resident educator license, the candidate must successfully complete the teacher education program and pass the appropriate exams mandated by the State of Ohio. All teacher licensure candidates must submit to fingerprinting and background checks by government investigative agencies.

Note: Licensure programs are subject to change based on recommendations of external accrediting bodies, e.g., Specialized Professional Associations (SPAs), the Ohio Board of Regents, and NCATE.

The Department of Education and Allied Studies does not offer multi-age licensure, K-12 in foreign languages. Individuals interested in foreign language teaching may seek an Alternative Resident Educator License for World Language (grades K-12) through the Ohio Department of Education. One of the Prerequisites is a bachelor's

degree in a world language. Interested students should contact the Ohio Department of Education or consult with the department chair for details.

Early Childhood (EC), Middle Childhood (MC), Adolescent/Young Adult (AYA), and Multi-Age (MA) Teaching

Successful completion of degree and licensure requirements entails course work in three categories: 1. Professional Education; 2. General Education; and 3. Curriculum Content (EC, MC) or Teaching Field (AYA and MA).

The University offers an undergraduate major in education. Students completing this major qualify for Early Childhood (EC) or Middle Childhood (MC) licensure after successful completion of the competency assessments, including student teaching and state-mandated exams.

Major Requirements

PROFESSIONAL AND PEDAGOGICAL STUDIES

A minimum of two-thirds of the credit hours in professional education studies must be earned at John Carroll University.

Early Childhood Education (EC): 62 semester hours Middle Childhood Education (MC): 47 semester hours

GENERAL EDUCATION

Early Childhood Education (EC): met by University Core

(Core may also fulfill some curriculum content requirements)

Middle Childhood Education (MC): University Core

(Core may also fulfill some curriculum content requirements)

CURRICULUM CONTENT

Early Childhood Education (EC): 16 semester hours

Middle Childhood Education (MC)
Language Arts: 35 semester hours
Mathematics: 23-27 semester hours
Science: 23-24 semester hours
Social Studies: 21 semester hours

exams to earn the 4/5 Generalist Endorsement.

The Early Childhood program develops expertise in working with children from ages 3 through 8 and pre-kindergarten through grade three. Candidates who earn an Early Childhood License may take the appropriate course work and state-mandated

The Middle Childhood program develops expertise in teaching students from ages 8 through 14 and grades four through nine. This program prepares middle-childhood

educators in two of four content areas: language arts, math, science, and social studies. The middle-childhood candidate may also qualify for the Middle Childhood Generalist Endorsement through additional course work and licensure exams. This endorsement adds subject areas for grades 4-6.

The University also offers Adolescent/Young Adult and Multi-Age teaching licensure preparation in a number of major teaching fields. Students completing the required education course work and teaching content area course work qualify for an Adolescent/Young Adult (AYA) (Grades 7-12) or Multi-Age (MA) (Pre K-12) license upon completion of required competency assessments, including student teaching and state-mandated exams.

The Adolescent/ Young Adult candidate prepares to work with adolescents from ages 12 through 21 and grades seven through twelve. Candidates may be licensed in at least one of the following teaching fields:

1. Integrated Language Arts

2. Integrated Social Studies

3. Integrated Mathematics

4. Chemistry/Life Science

5. Life Science

6. Physical Science: Physics/Chemistry

7. Physics

8. Chemistry

9. Life Science/Chemistry

The Multi-Age license prepares candidates to teach ages 3 through 21 and prekindergarten through grade twelve. Candidates may be licensed in Physical Education.

Program coordinators, faculty, and administrative staff counsel all undergraduate students interested in education as a major and/or license, and post-baccalaureate students interested in obtaining licensure. Prospective education majors may be assigned an academic advisor in the Department of Education and Allied Studies as their freshman/sophomore academic advisor. Prospective students interested in AYA or MA licensure continue to be advised by their major departments, though they are expected to maintain close and continuous contact with the AYA and MA education advisor or the program coordinators. Candidates must work closely with an advisor to complete a licensure program and/or a major in four years of full-time study. Those who declare an education major later in their academic program may expect to spend additional time completing requirements.

I. Professional and Pedagogical Studies

Professional and pedagogical studies provide a planned sequence of courses that develop knowledge about education, for example, its social and historical foundations, and foster understanding and use of the principles of effective teaching. The following courses are common to all licensure areas (EC, MC, AYA, and MA):

ED	100 Introduction to Education	3 cr.
ED 2	201 Assessment, Learning & Individual Differences	3 cr.
ED 2	253 School and Society	3 cr.
ED 2	255 Literacy Across the Curriculum	3 cr.

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ED 350 Multicultural Education in a Pluralistic Society	3 cr.
ED 386 Educational Technology	3 cr.
ED 405 Seminar in Teaching	3 cr.
ED 444 Student Teaching	9 cr.
Specifically required for Early Childhood Education	
ED 200 The Young Child: Development from Birth to Age 8	3 cr.
ED 224 Educating and Caring for Young Children	3 cr.
ED 225 Assessment of Young Children and Their Families	3 cr.
ED 225E Seminar I: Focus on Family Ecology	3 cr.
ED 325 Developmentally Appropriate Curriculum and Methods	3 cr.
ED 331 Integrated Early Childhood Methods I: Mathematics and Science	3 cr.
ED 332 Integrated Early Childhood Methods II: Social Studies 2	-3 cr.
ED 333 Integrated Early Childhood Methods III:	
Physical Education and the Arts	1 cr.
ED 334 Integrated Methods Clinic	
ED 355 Language Study and Phonics	3 cr.
ED 415 Educational Procedures for the Exceptional Child	
ED 456 Reading Assessment and Intervention.	3 cr.
ED 457 Methods in Reading Education	3 cr.
Specifically required for Middle Childhood Education	
ED 330 Middle Childhood Education Philosophy and Instruction	3 cr
PS 262 Adolescent Development	
ED 355 Language Study and Phonics	
ED 424 Middle Childhood Curriculum and Content Methods	
ED 456 Reading Assessment and Intervention.	
ED 457 Methods in Reading Education	
Specifically required for Adolescent/Young Adult Education	
PS 262 Adolescent Development	2 or
ED 337 Adolescent Special Education Methods	3 cr.
ED 427 Adolescent Education Special Topics	
	<i>5</i> C1.
Specifically required for Multi-Age Education	
PS 261 Child Development	
ED 427 Adolescent Education Special Topics	
PE 310 Methods Materials and Resources in Physical Education	3 cr

II. General Education (57 semester hours)

General Education requirements are met by the University Core. Many of the University Core courses may also fulfill program licensure requirements. Early childhood candidates must have a minimum GPA in University Core courses of 2.5 for admission to teacher education and student teaching.

III. Curriculum Content or Teaching Field

Early Childhood Licensure requirements (16 semester hours)

The curriculum and content courses of the Early Childhood License prepare pre-service teachers of young children (ages 3-8) for professions in pre-school and school settings, grounded in developmentally appropriate practice, and responsive to individual differences and needs.

MT 171 Foundation of Early Childhood Mathematics	4 cr.
AR 171/AR 171L Interdisciplinary Science	3-4 cr.
ED 356 Children's Literature	
SC 101 Introduction to Sociology or Division III (EC, PO, SC)	
MT 160 Math & Creativity	

Grades 4/5 Generalist Endorsement for Early Childhood Candidates and Teachers (9 semester hours)

ED 424A Middle Childhood Curriculum and Content Methods-	
Math and Science	3 cr
ED 424B Middle Childhood Curriculum and Content Methods-	
Language Arts and Social Studies	3 cr
ED 432 Middle School Education Philosophy and Instruction	3 cr

Middle Childhood Licensure requirements (2 curriculum content areas, ranging from 25 to 38 semester hours in each)

The curriculum and content courses of the Middle Childhood License prepare pre-service middle-level teachers to understand the unique nature of the middle-school environment and to organize the learning environment to respect developmental characteristics of middle-level students. Candidates are required to complete education and content-area course work for two teaching areas, which include:

Language Arts (ED 424 plus 35 semester hours of course work in EN and CO). Mathematics (ED 424 plus 22-25 semester hours of course work in MT and CS). Science (ED 424 plus 22-24 semester hours of course work in BL, CH, and PH). Social Studies (ED 424 plus 21 semester hours of course work in EC, PO, SC, and HS).

- **Note:** 1) An overall GPA of 2.7 or higher must be maintained in content-area course work for Middle Childhood, Adolescent/Young Adult, and Multi-Age Licensure.
 - 2) Undergraduate candidates who complete less than one-half of contentarea course work at John Carroll will be required to pass the state assessment in the content area as a Prerequisite for student teaching, Middle Childhood, Adolescent/Young Adult, or Multi-Age Licensure.
 - Post-baccalaureate candidates must pass the state assessment in the content area as a Prerequisite for student teaching, Middle Childhood, Adolescent/Young Adult, or Multi-Age Licensure.

Middle Childhood Generalist Endorsement for Middle Childhood candidates and teachers

To add one or two content areas for grades 4-6 (6-7 semester hours per content

area)	1
Language Arts: ED 356 Children's Literature EN 300 Advanced Writing	
Mathematics: MT 241 Foundations of Middle School Mathematics	
Science: AR 171/171L Interdisciplinary Science	
Social Studies: HS 211 U.S. History to 1877	

Adolescent and Young Adult Licensure requirements

The curriculum and content courses of the Adolescent and Young Adult License equip the pre-service secondary school teachers with the capacities and commitments to promote individual development and civic connection within and across diverse settings.

Students interested in AYA licensure must major in an academic subject area and may need to complete additional courses specific to the content-area license. During the initial semesters, students should plan to complete Core requirements. Where possible they should take courses that simultaneously meet the requirements of the University Core, their major, and/or AYA or MA program requirements. These program requirements are subject to change based on the SPAs and Ohio Department of Education requirements.

Integrated Language Arts (42 semester hours)

Integrated Social Studies (54 semester hours)

Chemistry/Physics (80-84 semester hours)

Life Science (70-71 semester hours)

Life Science/Chemistry (87-91 semester hours)

Mathematics (37-40 semester hours)

Physical Science: Physics/Chemistry (94-99 semester hours)

Physics (66 semester hours)

Chemistry (55-56 semester hours)

Chemistry/Life Science (72-73 semester hours)

Multi-Age Licensure requirements

The curriculum and content courses of the Multi-Age License equip pre-service physical education teachers with the capacities and commitments to be a professional across all ages, grounded in content knowledge, developmentally appropriate practices, and the ability to attend to individual differences and needs.

Physical Education (46 semester hours)

Note: 1) For the AYA and MA license, an overall GPA of 2.7 or higher must be maintained in content-area course work.

- 2) For the AYA and MA license, undergraduate candidates who complete less than one-half of content-area course work at John Carroll will be required to pass the state assessment in the content area as a Prerequisite for student teaching.
- For the MA license in Physical Education, post-baccalaureate candidates must pass the state assessment in the content area as Prerequisite for student teaching.

Admission to Teacher Education

Interested students must apply and be accepted into the teacher education program prior to registration in upper-division education courses. An applicant must have taken, or be enrolled in, ED 100, ED 200 (for EC) and 253 before, or at the time of, application for admission. Students may not take any additional course work beyond ED 100, ED 200 (for EC 200) and 253 unless they are formally admitted to teacher education. For those students interested in Early Childhood, ED 200 may be taken before being formally admitted to teacher education. Those accepted into the AYA or MA licensure program must also be accepted into a departmental major, e.g., history.

For undergraduates, application is typically made during the semester in which ED 253 is taken, usually in the sophomore year. Application forms are available on the department's website, http://sites.jcu.edu/education. Post-baccalaureate students are evaluated at the time of admission to the Office of Graduate Studies of the College of Arts and Sciences and need not make a separate application. An interview is required of all students, undergraduate and post-baccalaureate.

Candidates for teacher education are evaluated by faculty and teacher education area leaders, on the basis of the following criteria:

- Academic record for: overall GPA education GPA content area GPA (EC, MC, AYA, MA)
- 2. Interview, including a case study

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- Dispositions: Evidence of behavior consistent with the belief that teacher effectiveness involves a commitment to be culturally responsive, developmentally responsive, critically reflective, collaborative, committed to excellence, and justice-oriented.
- 4. Signed statement of moral character

Admissions Criteria

Accepted—Student may begin or continue work toward teacher licensure.

Criteria

- Academic Record:
 - 2.7 overall GPA
 - 2.7 education GPA based on ED 100 and possibly ED 253
 - 2.7 content-area GPA (MC, AYA, MA)
 - 2.5 GPA Core classes, Division I V (Early Childhood candidates only)
- 2. Dispositions:

Evidence of dispositions for teaching

Accepted Conditionally—May continue work toward teacher licensure.

Criteria

- 1. Favorable faculty recommendations
- Academic Record:
 - 2.5 2.7 overall GPA
 - 2.0 2.7 education GPA based on ED 100, ED 200 (for EC) and possibly ED 253
 - 2.5 2.7 content-area GPA for MC, AYA, MA only
- Dispositions: Evidence of behavior consistent with the belief that teacher effectiveness involves a commitment to be culturally responsive, developmentally responsive, critically reflective, collaborative, committed to excellence, and justice-oriented.

Note: Conditional acceptance may be given for one semester or one year.

Defer—May not begin or continue work toward teacher licensure.

Appeal Process:

An applicant who is deferred may meet with the Teacher Education Area Leaders to discuss concerns and establish an intervention plan, if possible. Applicants may be reconsidered at a later date, provided all the criteria for full or conditional acceptance are met and the student re-applies.

Reject—Student is not eligible for admission to Teacher Education.

The education department reserves the right to alter (on a case-by-case basis) the admissions procedures for individual students in exceptional circumstances.

Due process is available to applicants who wish to appeal their classification. First, applicants should discuss the matter with the advisor. After this discussion, if applicants still wish to appeal, they should do so in writing to the Teacher Education Program Area Leaders within two weeks of notification of classification. If further action is required, an appeal may be made to the department chair and the Teacher Education Committee for Admission and Retention.

Grade Policy for candidates majoring in education (EC or MC) or being licensed in AYA or MA:

- 1. A grade of C or higher is required in all education courses. A grade of C- or lower requires repeating the course. The applicant should schedule a meeting with the advisor or Teacher Education Program Area Leaders.
- A grade of C- or lower in a course in the teaching field or academic major will be reviewed by the Teacher Education Area Leaders and the department chair to determine an appropriate course of action, e.g., repeat the course, substitute a course.
- 3. A GPA of 2.7 is required throughout the programs for the overall GPA, education GPA, and teaching content areas for MC, AYA, MA.
- 4. A GPA of 2.7 or higher is required in course work for the teaching content area for MC, AYA, MA.
- 5. Early Childhood candidates must receive grades of C or higher in all curriculum-content course work for licensure, e.g., MT 171, AR 171, MT 160.
- 6. A GPA of 2.5 in the University Core is required for all Early Childhood candidates.

Program Assessment Points

The licensure process has several assessment points for candidates starting with:

- 1. Admission to the University.
- 2. Application and acceptance into the Teacher Education program.
- 3. Ongoing evaluation of the candidate's academic course work, clinical and field experiences, and evidence of a disposition for the teaching profession.
- 4. Acceptance into the Pre-Student Teaching semester, and placement in an intensive field-based experience with University supervision in preparation for Student Teaching.
- 5. Admission to the Professional Semester for Student Teaching.
- 6. Exit assessments for licensure.

Professional Year

The professional year is a unique aspect of the professional development of pre-service candidates at John Carroll University. All candidates participate in a full academic-year clinical experience in one classroom for Pre-Student Teaching (first semester) and Student Teaching (second semester). Pre-Student Teaching offers the opportunity to reflect, question, and continue with weekly experiences in a classroom that culminates in Student Teaching. As a requirement of the Pre-Student Teaching and Student Teaching experiences, the candidates meet on a regular basis in conference with the cooperating teacher and University supervisor to discuss present teaching capacity, receive feedback on areas for improvement, and continue to develop as a future educator.

Pre-Student Teaching

The candidate applies two semesters before the projected Student Teaching semester. The candidate is evaluated based on:

- 1 Course work
 - A GPAs
 - 2.7 Overall
 - 2.7 Education
 - 2.7 Content areas for MC, AYA, MA
 - 2.5 Division I-V Core courses for EC
 - B. All course work requirements have been completed or will be completed prior to student teaching.
- 2. Faculty interviews

Case study

Candidate resume

- 3. Faculty course evaluations
- 4. Decisions

Accept

Accept Conditionally

Defer

The pre-student teacher is assigned a cooperating teacher(s) in the licensure and content areas. In addition, a University supervisor is assigned to each pre-student teacher. A candidate is recommended/not recommended by the cooperating teacher(s) and University supervisor to continue into the student teaching semester.

Student Teaching

During the pre-student teaching semester, each candidate applies for Student Teaching. Approval is granted by the Council on Teacher Education and requires that the student has:

- 1. The following minimum GPAs:
 - 2.7 overall
 - 2.7 in Education courses
 - 2.7 in teaching content area(s) (MC, AYA, MA)
 - 2.5 Core (EC)
- 2. Successfully completed all clinical and field requirements for each course.
- 3. Completed all course requirements, education and teaching content area(s).
- 4. Obtained a recommendation to continue into student teaching by the cooperating teacher and University supervisor.
- 5. Demonstrated a teaching style and behaviors that provide evidence of the department's adopted dispositions for the teaching profession.
- 6. Taken and passed the appropriate exams if required, e.g., post-baccalaureate candidates, candidates who have completed more than one-half of content area course work at another institution.

Note: A student is not guaranteed admission to the final professional semester because of acceptance into teacher education and completion of the requisite courses.

The Council on Teacher Education may waive requirements in exceptional cases. In planning programs, candidates and advisors should be aware that student teaching is more demanding than a normal 9 hours of course work. Therefore, candidates should schedule no more than the required 12 hours of education credit, including student teaching, during the professional semester. Requests for more than 12 hours during student teaching must be submitted in writing to the Council on Teacher Education as part of the application for student teaching.

Note: For undergraduates, ED 100, 253, and formal acceptance into teacher education are prerequisites for all additional education courses.

100. INTRODUCTION TO EDUCATION 3 cr. Prerequisite for admission to teacher education. Emphasis on self-evaluation as a teacher. Introduction to critical issues in education, the person as a teacher, criteria for effective teaching, and effective school settings. Includes a field experience component. Lab fee required.

199. SPECIAL TOPICS 1-3 cr. Occasional course on a selected topic announced in advance.

200. THE YOUNG CHILD: DEVELOPMENT FROM BIRTH TO AGE 83 cr. Prerequisite: ED 100. Understanding child development, birth through age 8, across key developmental domains and the role of home and early childhood environments on development. Examination of similarities and differences between individuals and between social and cultural contexts as they impact development. Fieldwork in diverse early childhood settings. Does not require admission into TE Programs.

201.ASSESSMENT, LEARNING, AND INDIVIDUAL DIFFERENCES 3 cr. Prerequisites: ED 100, 253, and formal admission to teacher education. Principles and procedures of formal and informal assessment of learners for the purposes of planning and practicing instruction, with an emphasis on inquiry. Consideration of student differences (i.e., culture, cognitive differences, and exceptionalities) and how such differences affect assessment, motivation, and learning. Prerequisite to PS 261 or 262 for education majors.

- **224. EDUCATING AND CARING FOR YOUNG CHILDREN 3 cr.** Prerequisites: ED 100, 253, and formal admission to teacher education. Introduction to past and present models of early childhood education, to becoming an early childhood professional, and to the concept of developmentally appropriate practice. Includes an introduction to making ethical decisions when working with children, their families, and colleagues. Particular focus on verbal and nonverbal practices in order to promote children's self-regulation and social behaviors. Fieldwork in diverse early childhood settings.
- **225.ASSESSMENT OF YOUNG CHILDREN AND THEIR FAMILIES 3 cr.** Prerequisites: ED 100, 253, and formal admission to teacher education and Early Child licensure. Creating, selecting, and using appropriate informal and formal assessments in order to understand and plan for young children's development and learning across domains, including the affective, cognitive, physical, and social. Discussion of informal and formal techniques for collecting information about and sharing information with families as well as colleagues. Fieldwork in diverse early childhood settings.
- **225E. SEMINAR I: FOCUS ON FAMILY ECOLOGY 3 cr.** Corequisite: ED 225. Integrates learning theory with observational assessments for examination of external and internal factors that influence family dynamics and impact child growth and development. Topics include demographic shifts in family composition; cultural and social differences in parental values, beliefs, and attendant practices; school and community supports for family and children; ethical concerns and professional responsibility in family-school relationships. Includes a field experience component.
- **253. SCHOOL AND SOCIETY 3 cr.** Prerequisite for admission to teacher education. Foundations of education examined through historical, sociological, and philosophical perspectives to provide a comprehensive understanding of American education and related educational issues in a diverse society.
- **255.** LITERACY ACROSS THE CURRICULUM 3 cr. Prerequisites: ED 100, 253, and formal admission to teacher education. Literacy development examined through psychological, sociocultural, and historical perspectives. Examines reading as an interactive, problem-solving process. Strategies that foster critical thinking, active engagement, and social interaction in the teaching of reading and writing across the curriculum. Includes field experience. Field assignments related to licensure and content area.
- **325. DEVELOPMENTALLY APPROPRIATE CURRICULUM AND METHODS 3 cr.** Prerequisites: ED 100, 225, 253, and formal admission to teacher education and Early Childhood licensure. Using child development principles, research-based practices and standards to inform planning, instruction, and assessment. Further discussion of developmentally appropriate practice, particularly in effective planning and teaching strategies. Includes an introduction to integrated curriculum and an anti-bias education approach. Fieldwork in diverse early childhood settings.
- **330. MIDDLE CHILDHOOD EDUCATION PHILOSOPHY AND INSTRUCTION 3 cr.** Prerequisites: ED 100, 253; prerequisite or corequisite: PS 262; and formal admission to teacher education and Middle Childhood licensure. Historical development, goals, philosophy, and mission of middle-level education. Planning and managing, developmentally and culturally responsive instruction, and the use of organizational elements, such as interdisciplinary team, flexible scheduling, and grouping. Includes middle-level field experience.
- **331. INTEGRATED EARLY CHILDHOOD METHODS I: MATHEMATICS AND SCIENCE 3 cr.** Corequisites with ED 332 and 333, and application of course content during Corequisite clinical practicum, ED 334. Examination of approaches to plan, teach,

and assess for the development of young children's mathematical and scientific knowledge and skills from preschool through grade 3. Focus on using in-depth content knowledge and an integrative approach across the disciplines.

- **332.** INTEGRATED EARLY CHILDHOOD METHODS II: SOCIAL STUDIES 2-3 cr. Corequisite with ED 332 and 333, and application of course content during Corequisite clinical practicum, ED 334. Focuses on planning, teaching, and assessing in order to promote young children's knowledge and skills in the social studies. Focus on applying in-depth content knowledge as well as integration across the disciplines.
- **333. INTEGRATED EARLY CHILDHOOD METHODS III: PHYSICAL EDUCATION AND THE ARTS 1 cr.** Corequisite with ED 332 and 333, and application of course content during corequisite clinical practicum, ED 334. Investigation of the planning and implementation of instruction and activities related to physical development, health and nutrition, and safety, in addition to instruction and activities promoting skills in and knowledge of the arts (art, music, theatre, etc.).
- **334. INTEGRATED METHODS CLINIC 2 cr.** Corequisite with ED 331, 332, and 333. Supervised opportunities to apply principles of an integrated, developmentally appropriate curriculum and methods across the content areas of mathematics, science, social studies, physical education, and language arts.
- **337. ADOLESCENT EDUCATION SPECIAL METHODS 3 cr.** Prerequisites: ED 100, 253, and formal acceptance into teacher education. Prerequisite for ED 427 and admission to Pre-Student Teaching. For Adolescent and Multi-Age licensure program students. General methods and specific content-area methods for planning, implementing, and integrating curriculum, evaluating pupil achievement, and teaching to individual differences. Emphasis given to strategies related to effective teaching and learning in each licensure content area. Additional emphasis placed on nurturing a risk-taking classroom community responsive both to high standards of performance and to students with diverse backgrounds, abilities, and learning styles.
- **350. MULTICULTURAL EDUCATION IN A PLURALISTIC SOCIETY 3 cr.** Cultural, racial, ethnic, socioeconomic, gender, and individual differences and their effects on American education and society studied from sociological, historical, and philosophical perspectives. Development of human-relations skills to address diversity issues.
- **355.** LANGUAGE STUDY AND PHONICS 3 cr. Prerequisite or corequisite: ED 255. Examines language development in various stages across the life span. Language development with focus on the grapho-phonemic, syntactic, semantic, and pragmatic systems as they relate to literacy instruction. Examination of relevant issues such as literacy development, metalinguistic awareness, phonemic awareness, and discoveries pattern. Includes field experience.
- **356.** CHILDREN'S LITERATURE 3 cr. Critical analysis of various genres of literature for children with attention to multicultural literature and the relevance of literature across all disciplines.
- **357. ADOLESCENT LITERATURE 3 cr.** Critical analysis of the genres of adolescent literature with emphasis on major authors. Themes related to intellectual, social, cultural, and political issues, and the role of adolescent literature in the traditional language-arts curriculum. Required for students in AYA Integrated Language Arts Licensure.
- **380. SPECIAL PROJECTS OR FIELDWORK PLACEMENT 1-3 cr. each semester.** Prerequisite: permission of department. Special fieldwork placements for teacher licensure students.

- **386. EDUCATIONAL TECHNOLOGY 3 cr.** Prerequisite: formal acceptance into the teacher education program; corequisite: ED 325 or ED 330 or ED 337. Principles and techniques affecting technology in educational contexts. Includes exploration of emerging technologies and selection, production, and integration of educational materials. Lab fee required.
- **405A. EARLY CHILDHOOD EDUCATION SEMINAR 3 cr.** Corequisites: ED 444A and admission to the professional semester. Integrates entire preservice preparation. Draws on field experiences, course work in education, philosophy, psychology, and sociology in further exploring topics related to early-childhood education toward developing a coherent model of teaching children ages 3-8.
- **405B. MIDDLE CHILDHOOD EDUCATION SEMINAR 3 cr.** Corequisites: ED 444B and admission to the professional semester. Middle-level teacher's role of providing academic, social, career, and personal advisement to young adolescents as well as working collaboratively with colleges, families, resource persons, and community groups. Understanding the role of activity programs and their place in a middle-level curriculum.
- **405C. ADOLESCENT EDUCATION SEMINAR 3 cr.** Corequisites: ED 444C and admission to the professional semester. Continued study of adolescent development, learner achievement, and assessment. Integrates program learning with student teaching experience. Development of the professional portfolio and preparation for job interviewing.
- **405D. MULTI-AGE EDUCATION SEMINAR 3 cr.** Corequisites: ED 444D and admission to the professional semester. Continued study of all-grades development, learner achievement, and assessment. Integrates program learning with student teaching experience. Development of the professional portfolio and preparation for job interviewing.
- **415. EDUCATIONAL PROCEDURES FOR THE EXCEPTIONAL CHILD 3 cr.** Formation of skills in curriculum development, grouping, special procedures, planning, educational diagnosis, and other techniques suitable for working with a specified population of exceptional children. Requires work with students and parents in field settings.
- 424. MIDDLE CHILDHOOD CURRICULUM AND CONTENT-SPECIFIC METHOD
- **4 cr.** Prerequisites: ED 330 and acceptance into pre-student teaching. Specific contentarea methods for planning, implementing, and integrating curriculum, assessing student achievement, and teaching to individual differences. Taken concurrently with pre-student teaching.
- **424A. MIDDLE CHILDHOOD CURRICULUM AND CONTENT METHODS: MATH/SCIENCE 3 cr.** Prerequisite: ED 432. Specific content-area methods for planning, implementing, and integrating curriculum, assessing student achievement, and teaching to individual differences. Focus on math and science content in grades 4 and 5. Blended online and campus-based course. For Early Childhood Education candidates pursuing 4-5 Endorsement.
- **424B. MIDDLE CHILDHOOD CURRICULUM AND CONTENT METHODS: SOCIAL STUDIES AND LANGUAGE ARTS 3 cr.** Prerequisite: ED 432. Specific content-area methods for planning, implementing, and integrating curriculum, assessing student achievement, and teaching to individual differences. Focus on social studies and English language arts content in grades 4 and 5. Blended online and campus-based course. For Early Childhood Education candidates pursuing 4-5 Endorsement.

- **427. ADOLESCENT EDUCATION SPECIAL TOPICS 3 cr.** Prerequisites: ED 337 and acceptance into pre-student teaching. Practical application of issues to pre-student teaching field setting. Taken by adolescent licensure program students the semester preceding student teaching. Issues of conflict negotiation, social justice, curriculum development, and school reform as they relate to the secondary school setting.
- **432. MIDDLE CHILDHOOD EDUCATION PHILOSOPHY AND INSTRUCTION 3 cr.** Historical development, goals, philosophy, and mission of middle-level education. Planning and managing, developmentally and culturally responsive instruction, and use of organizational elements such as interdisciplinary team, flexible scheduling, and grouping. Includes middle-level field experience. For Early Childhood Education candidates pursuing 4-5 Endorsement.
- **444A. DIRECTED TEACHINGS IN EARLY CHILDHOOD SETTING 9 cr.** Corequisites: ED 405A and admission to the professional semester. Develops the special knowledge and competencies required of pre-K to 3rd grade teachers through observation and teaching in early-childhood settings and classrooms under the joint supervision of University and school personnel. Requires a full-time, full-semester placement at an early-childhood setting. Lab fee required.
- **444B. MIDDLE CHILDHOOD EDUCATION STUDENT TEACHING 9 cr.** Corequisites: ED 405B and admission to the professional semester. Full-time student teaching in a middle-level setting under the supervision of a qualified teacher and a University supervisor. Lab fee required.
- **444C. ADOLESCENT STUDENT TEACHING 9 cr.** Corequisites: ED 405C and admission to the professional semester. A full-day full semester of teaching in an accredited secondary school under the direction of a classroom teacher qualified in the content area and a University supervisor. Supervision includes personnel with advanced training in the relevant content area. Lab fee required.
- **444D. MULTI-AGE STUDENT TEACHING 9 cr.** Corequisites: ED 405D and admission to the professional semester. A full-day full semester of teaching in an accredited secondary school under the direction of a classroom teacher qualified in the content area and a University supervisor. Supervision includes personnel with advanced training in the relevant content areas. Lab fee required.
- **456. READING ASSESSMENT AND INTERVENTION 3 cr.** Prerequisites and/or corequisites: ED 255 and 355. Gaining familiarity with formal and informal tools for assessing literacy development with emphasis on planning, implementing, and evaluating intervention strategies. Includes field experience.
- **457. METHODS IN READING EDUCATION 3 cr.** Prerequisites: ED 255, 355, 456. Practicum experience that includes advanced examination of various reading methods and techniques for instructional planning and development of intervention plans based on assessment and diagnosis of reading abilities. Site-based course. Includes tutoring within a practicum setting.
- **480. SPECIAL TOPICS 1-6 cr.** Prerequisite: permission of department. In-depth study of topic in workshop form or as an individual project under supervision.

English (EN)

Professors: D. M. La Guardia, J. M. Colleran (Dean), J. S. McBratney (Chair), J. T. Day (Provost and Academic Vice President), P. J. Metres III; Associate Professors: B. K. Macaskill, M. Moroney (Associate Dean), G. B. Bilgere, D. J. Rosenthal, P. Kvidera (Associate Dean); Assistant Professors: T. L. Hayes, T. Pace, A. Nutting, E. E. Butler, J. Stayer, S.J., J. E. Feerick; Writing Center Director: M. Soriano

Students of English share in an enriched experience of imaginative language in which they read literature and produce critical, creative, and professional writing. English majors learn to sharpen their analytical and writing powers, while studying works they can enjoy throughout their lives. Graduates with a degree in English flourish in law, business, government, education, research, medicine, and professional writing. Students majoring in English may choose the literature, creative writing, or professional writing track.

First-year English composition is required for all bachelor's degrees. Placement in composition courses is determined by SAT or ACT scores, high school GPA, and/or demonstration of requisite writing skills. Students with an AP English score of four or higher may test out of first-year English. Students achieving high scores in the SAT or ACT may be assigned to EN 114-116. Students needing intensive instruction in English composition are assigned to EN 103-104. All others are assigned to EN 111-112. Writing assistance is available to all students, inside and outside of English composition, through the Writing Center.

Completion of first-year composition courses is normally a prerequisite for any 200- or 300-level course. Refer to individual course listings for indicated prerequisites or special permissions.



Major and Minor Requirements

Major in English: 39 credit hours (excluding any course ordinarily designed for first-year composition). Students may elect to complete one of two tracks: literature or writing-intensive.

Literature track

1. Two 200-level literature courses: 6 credit hours

Majors are strongly encouraged to take one of the following courses:

EN 214 Major British Writers

EN 222 Introduction to Shakespeare

EN 277 Major American Writers

One 200-level literature course serves as the prerequisite for literature courses at the 300 or 400 level.

2. Four 300-level courses: 12 credit hours

Two that are pre-1800 (a.,b.,c.) and two that are post-1800 (d., e., f.)

- EN 311 Old English Language and Literature or EN 312 Late Medieval Literature
- b. EN 320 Literature in the Age of Henry VIII and Elizabeth I or EN 321 Literature in the Age of the Stuarts and the Civil War
- c. EN 330 Augustan Literature or EN 331 Late 18th-Century Literature
- d. EN 340 Romantic Literature or EN 351 Victorian Literature
- e. EN 360 Modern British Literature or EN 361 Contemporary British Literature or EN 382 20th-Century Literature
- f. EN 371 19th-Century American Literature or EN 372 20th-Century American Literature
- Seven elective courses: 21 credit hours

Four electives must be at the 400 level. For the literature-track students, three of the four 400-level courses should be literature courses. Students seeking a secondary teaching license may choose to take three 400-level courses, with the written permission of the department chair. Remaining electives may be taken at the 200, 300, or 400 level. Whenever possible, students should take 300-level courses before taking 400-level courses.

- 4. A comprehensive exam administered by the English Department
- 5. With the written permission of the department chair, students may use as an elective for the English major one course in literature offered by the Department of Classical and Modern Languages and Cultures.

Minor in English (Literature Track): 18 credit hours (excluding first-year composition). 1) Two 200-level literature courses. 2) Two 300-level courses, with at least one 300-level course a historical survey from the following: 311, 312, 320, 321, 330, 331, 340, 351, 360, 361, 371, 372, 382. 3) One 400-level literature course. 4) One EN elective at any level.

Creative Writing Track

1. Two 200-level literature courses: 6 credit hours

Majors are strongly encouraged to take at least one of the following three courses:

EN 214 Major British Writers

EN 222 Introduction to Shakespeare

EN 277 Major American Writers

One 200-level literature course serves as the Prerequisite for 300- and 400-level literature courses.

2. Four 300-level courses: 12 credit hours

Two that are pre-1800 (2. a., b., c. under "Literature Track") and two that are post-1800 (2. d., e., f. under "Literature Track")

3. Creative Writing Courses: 12 credit hours

Two courses from the introductory level, one of which is Prerequisite to the advanced-level courses:

EN 300 Advanced Writing

EN 301 Introductory Poetry Writing Workshop

EN 302 Introductory Fiction Writing Workshop

EN 303 Introductory Creative Writing Workshop

EN 304 Introductory Creative Non-Fiction Writing Workshop

CO 225, 270, 295, or 310 may be substituted for one introductory writing workshop.

Two courses from the advanced level:

EN 401 Advanced Poetry Workshop

EN 402 Advanced Fiction Workshop

EN 403 Special Topics in Advanced Writing Workshop

EN 404 Advanced Creative Non-Fiction Workshop

4. Study of Language and Theory: 3 credit hours. One course from:

EN 485 Contemporary English Grammar

EN 488 History of the English Language

EN 489 Studies in Rhetoric and Composition

EN 490 History of Literary Theory and Criticism

EN 491 Feminist Literary Criticism

EN 495 Critical Practice

- 5. One 400-level literature course: 3 credit hours
- 6. One elective at any level: 3 credit hours
- 7. A portfolio to be submitted to the English Department

Minor in English (Creative Writing Track): 18 credit hours (excluding first-year composition). 1) One of EN 300, 303, 304. 2) One of EN 301, 302, 303 (303 may meet only one of the first two required 300-level courses. 3) One of EN 401, 402, 403, or 404. 4) One course in 20th-century literature. 5) One genre course or another writing workshop. 6) One elective writing workshop at the 300 or 400 level.

Professional Writing Track

1. Two 200-level literature courses (EN 250 not appropriate as literature option): 6 credit hours

Majors are strongly encouraged to take at least one of the following three courses:

EN 214 Major British Writers

EN 222 Introduction to Shakespeare

EN 277 Major American Writers

One 200-level literature course serves as the Prerequisite for 300- and 400-level literature courses.

2. Four 300-level courses: 12 credit hours

Two that are pre-1800 (2. a., b., c. under "Literature Track") and two that are post-1800 (2. d., e., f. under "Literature Track")

3. Professional Writing Courses: 12 credit hours

Two courses from the introductory level, one of which is Prerequisite to the specialized-level courses:

EN 250 Writing and the Professions (encouraged as a preparation for specialized-level courses)

One course from: EN 290, 300, 301, 302, 303, 304, CO 225

Two courses from the specialized level:

EN 405 Writing about Film

EN 406 Writing and the Environment

EN 407 Writing about Our Health

EN 408 Writing in the New Media

EN 409 Technical Writing

EN 410 Special Topics in Writing

With chair's permission, an appropriate course from another John Carroll department may replace one of the 400-level courses.

4. Study of Language and Theory: 3 credit hours. One course from:

EN 485 Contemporary English Grammar

EN 488 History of the English Language

EN 489 Studies in Rhetoric and Composition

EN 490 History of Literary Theory and Criticism

EN 491 Feminist Literary Criticism

EN 495 Critical Practice

- 5. One 400-level literature course: 3 credit hours
- 6. Internship(s) in Professional Writing: a total of 3 credit hours
- 7. A portfolio to be submitted to the English Department

Minor in English (Professional Writing Track): 18 credit hours (excluding first-year composition). 1) EN 250. 2) EN 300. 3) One course from EN 301, 302, 303, 304, CO 225. 4) Two courses in professional writing on 400 level (see 3 above). 5) Internship(s) in professional writing (see 6 above).

Teaching Licensure Requirements in English for Adolescent/Young Adults (AYA)

Students should note that the teaching licensure consists in part of courses in education. In addition to meeting these requirements, students must also meet the requirements of the English major. Students should consult with their advisors early in their program for details.

Students interested in an interdisciplinary major in world literature, offered through the Department of English and the Department of Classical and Modern Languages and Cultures, should consult the chair of either department. The program of courses selected for the major must be approved by the dean.

Course requirements for the Master of Arts in English are published in the Graduate Studies Bulletin

- **103. BASIC COMPOSITION 4 cr.** Equivalent of EN 111, but with greater attention to individual writing needs. Once students complete EN 103, they then proceed to EN 104. Students in EN 103 who earn a grade of A and who are recommended by their instructor may opt for EN 112.
- **104. BASIC COMPOSITION II 4 cr.** Equivalent to EN 112 but with greater attention to individual writing needs.
- 111-112. COMPOSITION AND RHETORIC I, II 3 cr. each. 111: Instruction in principles of rhetoric and eloquence; essentials of academic argumentation, critical thinking, audience awareness, reflection, revision, all stressing the centrality of writing to intellectual life. Detailed instruction in usage, mechanics, form, and structure appropriate for argument-based writing. Frequent written assignments. 112: Further focus on critical and academic writing and rhetoric; proficiency in finding, evaluating, and synthesizing print and online sources appropriate for academic and non-academic writing situations. Frequent written assignments as well as major research project.
- **114-116. ADVANCED FRESHMAN COMPOSITION I, II 3 cr. each.** Placement in EN 114 depends on SAT or ACT score and quality of writing sample. 114: Instruction in principles of rhetoric and eloquence. Asks students to write a number of different expository and critical papers in response to literary or non-literary texts. 116: Designed to provide advanced students with an opportunity to explore various academic and non-academic genres and develop academic research skills.
- **199. SPECIAL TOPICS IN ENGLISH LANGUAGE AND COMPOSITION 1-4 cr.** Topic, prerequisite (if any), and number of credits announced each time the course is offered. Does not satisfy Core composition requirement.
- **201. INTRODUCTION TO POETRY 3 cr.** Diction, form, and organization as principles of poetic communication and as bases for exercises in interpretation and evaluation.
- **202. INTRODUCTION TO SHORT FICTION 3 cr.** Critical examination of short fiction. Selections from such authors as Hawthorne, Conrad, Chekhov, James, Hemingway, O'Connor, and Welty.
- **203. WORLD DRAMA 3 cr.** Survey showing the history, changing patterns, and dramaturgical techniques from classical beginnings to modern times.

- **204. INTRODUCTION TO THE NOVEL 3 cr.** Detailed examination of analytical techniques needed for the critical reading of fiction.
- **205. INTRODUCTION TO FILM STUDIES 3 cr.** Introduction to the study of film; its stylistic tendencies, narrative strategies, histories, genres, and theoretical approaches. The course spans the silent and the sound eras and offers examples of film from Hollywood and beyond.
- **214. MAJOR BRITISH WRITERS 3 cr.** Strongly encouraged for all English majors. Critical survey of British authors and literary periods from the Middle Ages to the twentieth century.
- **222. INTRODUCTION TO SHAKESPEARE 3 cr.** Strongly encouraged for all English majors. Shakespeare's life and background; readings of representative plays from the comedies, histories, and tragedies.
- **250.** WRITING AND THE PROFESSIONS 3 cr. Introduction to the principles of and strategies for planning, writing, and revising professional documents common in government, business, and industry.
- **277. MAJOR AMERICAN WRITERS 3 cr.** Strongly encouraged for all English majors. Critical survey of American authors and literary periods from the colonial period to the present.
- **278. INTRODUCTION TO AFRICAN AMERICAN LITERATURE 3 cr.** Survey of major African American writers.
- **280. ISRAELI AND PALESTINIAN LITERATURES 3 cr.** Comparative study of Israeli and Palestinian literatures; how Palestinians and Israelis narrate their national stories, staking a claim to a way of being and belonging to the land they co-inhabit. Topics include post-colonial theory, the politics of representation, historical versus literary narration, and theories of resistance and reconciliation.
- **281. MASTERPIECES OF WESTERN LITERATURE I 3 cr.** Literary masterworks of Western literature from the ancient, Medieval, and Renaissance periods.
- **282. MASTERPIECES OF WESTERN LITERATURE II 3 cr.** Literary masterworks of Western literature from the Neoclassical period to the present, with some attention to contemporary non-Western works.
- **284. WRITING WOMEN: AN INTRODUCTION 3 cr.** Survey of work by British, American, and Anglophone women writers since 1800, with primary attention to lyric, short fiction, and drama.
- **285. INDIAN LITERATURE 3 cr.** Survey of major works from the Veda to the contemporary Indian novel. All readings in English.
- **286. AFRICAN LITERATURE 3 cr.** Major works, authors, and literary traditions of African Anglophone literatures.
- **287. IRISH LITERATURE 3 cr.** Celtic myths and folklore; major works, authors, and literary traditions of Irish literature
- **288. JAPANESE LITERATURE 3 cr.** Key texts and authors of different historical eras, from ancient Japan to the present, as well as the historical and cultural developments in Japan that influenced literary production. All readings in English.
- **289. INTERNSHIP 1-3 cr.** Prerequisite: permission of chair. Supervised and directed experiential learning in a position relevant to a major sequence of study. Students may petition to have a three-credit internship count as an elective toward completing major requirements.

- **290. TUTORING WRITING ACROSS CONTEXTS 3 cr.** Focus on tutoring in the Writing Center, with an examination of theories and practices applicable to teaching and tutoring writing in other contexts as well. Instructor permission required.
- **291. ENVIRONMENTAL LITERATURE 3 cr.** Study of American environmental writing; place-based literature by authors whose work is deeply concerned with how humans interact with the natural world and how various literary interpretations of the land have influenced attitudes towards the environment.
- **299. SPECIAL TOPICS IN LITERATURE 3 cr.** Introductory literature courses designed especially to meet Core requirements for Literature (L), Diversity (D), or International (R/S) courses. Specific topics announced in advance.
- **300. ADVANCED WRITING 3 cr.** Prerequisites: EN 103, 104/112; or EN 111, 112; or EN 114, 116; or placement out of first-year English as determined during new student orientation. Fundamentals and practice in the essay and other non-fiction forms; emphasis on writing for specialized audiences.
- **301. INTRODUCTORY POETRY WRITING WORKSHOP 3 cr.** Prerequisites: EN 103, 104/112; or EN 111, 112; or EN 114, 116; or placement out of first-year English as determined during new student orientation. Fundamentals and practice of writing poetry.
- **302. INTRODUCTORY FICTION WRITING WORKSHOP 3 cr.** Prerequisites: EN 103, 104/112; or EN 111, 112; or EN 114, 116; or placement out of first-year English as determined during new student orientation. Fundamentals and practice of writing short stories.
- **303. INTRODUCTORY CREATIVE WRITING WORKSHOP 3 cr.** Prerequisites: EN 103, 104/112; or EN 111, 112; or EN 114, 116; or placement out of first-year English as determined during new student orientation. Fundamentals and practice of creative writing across genres.
- **304. INTRODUCTORY CREATIVE NON-FICTION WORKSHOP 3 cr.** Prerequisites: EN 103, 104/112; or EN 111, 112; or EN 114, 116; or placement out of first-year English as determined during new student orientation. Fundamentals and practice of writing creative non-fiction.
- **311. OLD ENGLISH LANGUAGE AND LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Examination of the language and literature of the Anglo-Saxons in the context of their early medieval milieu.
- **312. LATE MEDIEVAL LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Survey of late medieval literature. Explores the diversity within late medieval English literature from courtly romance to bawdy fabliau, with stops for royal theatricality and religious devotion.
- **320.** LITERATURE IN THE AGE OF HENRY VIII AND ELIZABETH I **3 cr.** Prerequisite: a 200-level literature course. Survey of major authors, themes, genres, and forms of sixteenth-century English literature, including Sidney, Spenser, and Shakespeare.
- **321.** LITERATURE IN THE AGE OF THE STUARTS AND THE CIVIL WAR 3 cr. Prerequisite: a 200-level literature course. Survey of major authors, themes, genres, and forms of seventeenth-century English literature, including works by Donne, Jonson, and Milton.
- **330.** AUGUSTAN LITERATURE 3 cr. Prerequisite: a 200-level literature course. Major authors, themes, genres, and forms of British literature from the Restoration to the mideighteenth century.
- **331. LATE EIGHTEENTH-CENTURY LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Major authors, themes, genres, and forms of British literature during the latter half of the eighteenth century.

- **340. ROMANTIC LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Survey of British literature from c. 1785-1830.
- **351. VICTORIAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Survey of British literature from c. 1830-1900. Recent topics have included the Victorian response to Romanticism, industrialization, religious faith and doubt, "the Woman Question," aestheticism, and empire.
- **360. MODERN BRITISH LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Study of major British writers, themes, and genres of British literature from 1890 to 1950.
- **361. CONTEMPORARY BRITISH LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Study of British writers, themes, and genres of British literature from 1930 to the present.
- **371.NINETEENTH-CENTURYAMERICAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Authors, genres, and works of nineteenth-century American literature.
- **372. TWENTIETH-CENTURY AMERICAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Authors, genres, and works of twentieth-century American literature.
- **382. TWENTIETH-CENTURY LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance and may include the novel, drama, or poetry.
- **399. SPECIAL STUDY IN BRITISH, AMERICAN, OR WORLD LITERATURE 1-3 cr.** Topic, Prerequisite (if any), and number of credits announced in advance.
- **401. ADVANCED POETRY WRITING WORKSHOP 3 cr.** Prerequisite: EN 301 or 303. Intense, advanced work in crafting poems.
- **402. ADVANCED FICTION WRITING WORKSHOP 3 cr.** Prerequisite: EN 302, 303, or 304. Intense, advanced work in crafting short stories.
- **403. SPECIAL TOPICS WRITING WORKSHOP 3 cr.** Prerequisite: EN 302, 303, or 304. Topic of special writing projects announced in advance.
- **404. ADVANCED CREATIVE NON-FICTION WORKSHOP 3 cr.** Prerequisite: EN 302, 303, or 304. Intense, advanced work in creative non-fiction prose.
- **405. WRITING ABOUT FILM 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Writing about film for reviewing, formal film criticism, entertainment writing, and film scholarship.
- **406. WRITING AND THE ENVIRONMENT 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Study of the competing discourses that define our relationship to the natural world, frame environmental problems, and argue for public action.
- **407. WRITING ABOUT OUR HEALTH 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Medical science writing, writing as healing, or other topics in health writing.
- **408. WRITING IN THE NEW MEDIA 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Survey of visual rhetoric and design theories as they apply to digital short subjects.
- **409. TECHNICAL WRITING 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Introduction to effective workplace writing practices; emphasis on technical and digital writing, audience and organizational needs, information design, ethics, usability testing, and team writing.
- **410. SPECIAL STUDIES IN WRITING 3 cr.** Prerequisite: EN 250, 290, 300-304, or CO 225. Selected topics, such as grant and proposal writing, announced in advance.

- **411. STUDIES IN MEDIEVAL LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Selected issues, authors, and genres of literature of the Middle Ages; specific topic announced in advance and may be one of the following: the *Pearl-Poet*, exile narratives, or translating the Middle Ages.
- **412. MEDIEVAL DRAMA 3 cr.** Prerequisite: a 200-level literature course. Detailed examination of medieval drama, which reached its pinnacle in the cycles of mystery plays of the fourteenth and fifteenth centuries and allows readers to question the relationship between religion, satire, and a love of the grotesque.
- **416. CHAUCER 3 cr.** Prerequisite: a 200-level literature course. Detailed examination of the "first English poet." Emphasis on *The Canterbury Tales* and *Troilus and Criseyde* to explore medieval ideas about authorship, social unrest, reform and heresy, gender, and "otherness."
- **421. STUDIES IN RENAISSANCE LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Selected issues, authors, and genres of the Renaissance period; specific topic announced in advance
- **422.** STUDIES IN SHAKESPEARE 3 cr. Prerequisite: a 200-level literature course. Selected studies of Shakespearean drama and/or poetry; specific topic announced in advance.
- **425. MILTON 3 cr.** Prerequisite: a 200-level literature course. Detailed examination of the major poetry and selected prose.
- **430. STUDIES IN EIGHTEENTH-CENTURY LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of issues, authors, and genres of literature of eighteenthcentury England; specific topic announced in advance.
- **431. DRAMA OF THE RESTORATION AND EIGHTEENTH CENTURY 3 cr.** Prerequisite: a 200-level literature course. English drama from Davenant to Sheridan, with emphasis on the stage as a reflection of the period.
- **432. THE ENGLISH NOVEL: DEFOE THROUGH AUSTEN 3 cr.** Prerequisite: a 200-level literature course. History, changing patterns, and techniques of English novel writing in the eighteenth and early nineteenth centuries.
- **441. STUDIES IN ROMANTIC LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of Romantic literature; specific topic announced in advance.
- **445. BRITISH WOMEN WRITERS SINCE 1800 3 cr.** Prerequisite: a 200-level literature course. Examination of formal experiments and thematic concerns of major artists, with particular attention to the nineteenth and early twentieth centuries.
- **453. KEATS 3 cr.** Prerequisite: a 200-level literature course. Examination of Keats's poetry.
- **454. STUDIES IN VICTORIAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of Victorian literature; specific topic announced in advance. Recent topics include aestheticism and empire, Victorian cosmopolitanism, and Victorian poetry.
- **458. DICKENS 3 cr.** Prerequisite: a 200-level literature course. The major novels, with a study of their backgrounds, art, and language.
- **459. THE ENGLISH NOVEL: DICKENS THROUGH HARDY 3 cr.** Prerequisite: a 200-level literature course. Examination of nineteenth-century British fiction, particularly the novel. Recent topics have included Victorian detective fiction and the Victorian novel's negotiation of the foreign.

- **460. STUDIES IN MODERN BRITISH LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of 20th century literature; specific topic announced in advance.
- **461. STUDIES IN CONTEMPORARY BRITISH LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of contemporary British literature; specific topic announced in advance.
- **470. STUDIES IN NINETEENTH-CENTURY AMERICAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of nineteenthcentury American literature; specific topic announced in advance.
- **471. STUDIES IN TWENTIETH-CENTURY AMERICAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specialized study of twentieth-century American literature; specific topic announced in advance.
- **472. STUDIES IN AFRICAN AMERICAN LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **473. FAULKNER 3 cr.** Prerequisite: a 200-level literature course. Examination of his major writings as well as their background and cultural context.
- **474. AMERICAN POETRY 3 cr.** Prerequisite: a 200-level literature course. Major American poets from Whitman to the present.
- **480. STUDIES IN POSTCOLONIAL LITERATURES 3 cr.** Prerequisite: a 200-level literature course. Study of literary texts from formerly colonized nations in Africa, Asia, or elsewhere; specific topic announced in advance.
- **481. STUDIES IN IRISH LITERATURE 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **482. STUDIES IN CONTEMPORARY POETRY 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **483. STUDIES IN CONTEMPORARY THEATRE 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **484. STUDIES IN CONTEMPORARY FICTION 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **485. CONTEMPORARY ENGLISH GRAMMAR 3 cr.** Prerequisite: a 200-level literature course. Study of contemporary theories of English grammar. Focuses on ways of learning and thinking about grammar with respect to contemporary English usage.
- **486. STUDIES IN MODERN DRAMA 3 cr.** Prerequisite: a 200-level literature course. Specific topic announced in advance.
- **488. HISTORY OF THE ENGLISH LANGUAGE 3 cr.** Prerequisite: a 200-level literature course. Study of the sounds, forms, and syntax of Early, Middle, Early Modern, and Modern English from its first, fraught centuries to its shape-shifting roles in the global community today. Also introduces the fundamentals of more general linguistic study.
- **489. STUDIES IN RHETORIC AND COMPOSITION 3 cr.** Prerequisite: a 200-level literature course. Study of rhetoric, composition theory, and pedagogy, including a practicum.
- **490. HISTORY OF LITERARY THEORY AND CRITICISM 3 cr.** Prerequisite: a 200-level literature course. Elements of literary theory, and a survey of the major theorists from Plato to the present.

- **491. FEMINIST LITERARY CRITICISM 3 cr.** Study of various theories of feminist literary criticism. The social construction of gender and identity, the possibilities for women's creative expression, and the influence of gender-related issues on the study of literary texts.
- **495. CRITICAL PRACTICE 3 cr.** Prerequisite: a 200-level literature course. Survey of options available to literary critics of the twentieth century, and practice in the application of criticism to literary texts.
- **496. FRAMED NARRATIVES: NOVEL AND CINEMA 3 cr.** Prerequisite: a 200-level literature course. Structural and thematic functions of pictorial and narrative frameworks in film and novel.
- **497. HOPKINS SEMINAR 3 cr.** Prerequisites: a 200-level literature course and permission of the chair. Advanced, special seminar in literature taught by the visiting Hopkins professor; specific topic announced in advance.
- **498. INDEPENDENT STUDY 13 cr.** Prerequisites: a 200-level literature course; consent of project advisor and department chair. Special projects in literature. Projects must be approved before registration. See chair for forms and guidelines.
- **499. SPECIAL STUDIES 13 cr.** Prerequisite: a 200-level literature course. Selected topics announced in advance.



Entrepreneurship (ER)

Professors: D. A. Dukes; J. J. Schmidt (Interim Director), S. M. Kaye, D. P. Mascotti; Associate Professors: M. P. Lynn, E. A. Stiles; Assistant Professor: S. B. Moore

Specifically designed for students from all majors, the minor in entrepreneurship starts with idea development and creativity that help them become more effective in either for-profit or nonprofit enterprises.

Examples of entrepreneurial enterprises include Habitat for Humanity, Kaboom, Google, E-Bay, Zappos, and Twitter. Future entrepreneurs pursue majors in either the arts, humanities, social sciences, natural sciences, or business. A national study found that 75% of entrepreneurs focused their college studies in fields outside of business or engineering.

The entrepreneurship minor will support any major. Required course work, detailed below, depends on whether a student selects a major in the College of Arts & Sciences or the Boler School of Business. Faculty from both colleges teach the courses in the minor, which is directed by an interdisciplinary faculty committee chaired by an interim director. Participation in the minor puts students into contact with a team that will help develop their skills as entrepreneurs.

Minor Requirements

The Arts & Sciences track: ER 101, 102, 203, 304, 305*, 306*, and 480, plus one approved ethics course (21 hours).

*Open only to majors in the College of Arts & Sciences

The Business track: ER 101, 102, 203 (or MN 364), 304, 480; FN 312; MK 301; and plus PL 311 (21 hours).

- **101. CREATIVITY, INVENTION, AND INNOVATION 1 cr.** The creative process: What it is, how to improve it, how to work with it. Using a project-focused approach, students learn about creative thinking as it applies to the development of innovations and inventions in the arts, sciences, and business.
- **102. IDEA DEVELOPMENT 2 cr.** Prerequisite: ER 101. Alternative representations of the opportunity recognition process. Students learn how to move from an idea as a vague concept to an innovation as a well-designed idea.
- **203. INTRODUCTION TO ENTREPRENEURSHIP 3 cr.** Prerequisites: ER 101 and 102. Study of entrepreneurship and its role in new venture creation, as well as its impact on economic growth and development. Explores the functional areas of business, including project development, production and operations, marketing and sales, finance and accounting.

Entrepreneurship

- **304. SOCIAL ENTREPRENEURSHIP 3 cr.** Prerequisites: ER 101, 102, and 203 or MN 364. Applies the principles examined in ER 203 to social enterprises. Introduces the meaning and importance of social entrepreneurship in the modern economy and demonstrates how entrepreneurial orientation can assist in the attainment of nonprofit and social objectives.
- **305.** ACCOUNTING & FINANCE FOR ENTREPRENEURS 3 cr. Prerequisite: ER 203. The basic role of accounting in an organization. Analysis and interpretation of financial statements, tax data, and project planning and assessment. Also, concepts related to making financial decisions: the cost of capital, time value of money, and the sources of, and approaches to raising, entrepreneurial capital. (For Arts and Sciences students.)
- **306. ENTREPRENEURIAL MARKETING & SALES 3 cr.** Prerequisite: ER 203. Introduction to marketing, especially the marketing needs of entrepreneurial enterprises. Topics include distribution, pricing, promotion, product decisions and strategies, the sales process, and management of ethical problems. (For Arts and Sciences Students.)
- **480. ENTREPRENEURSHIP FIELD EXPERIENCE 3 cr.** Prerequisite: completion of at least 12 hours of course work in the minor, including ER 305 or 306 (FN 312 or MK 301 for students on the Business track). Students develop a non-profit or profit venture. This requirement may be satisfied also through an approved internship.



Finance (FN)

Professors: F. J. Navratil, L. D. Brooks; Assistant Professor: S. B. Moore; Visiting Assistant Professor: H. Chen

The primary goal of the finance program is to extend the understanding of financial theory and practice among our students, the University, and the broader community. We pursue this goal through quality teaching and advising, significant research, and appropriate community involvement.

The general goal of the department's undergraduate finance program is to cultivate students' critical thinking skills and to aid them in developing a logical, ordered approach to solving business problems. Students completing a finance program offered by the department should gain the knowledge and understanding of financial theory and practice so that they can:

- Demonstrate proficiency in the use of the language of finance in both oral and written form.
- Demonstrate the ability to apply financial analysis to a wide range of personal and business problems.
- Consider ethical issues raised in business situations in the context of their moral and spiritual values.
- Make a successful transition into the workforce or further professional education
- Develop the ability to evaluate personal and business financial decisions within the context of their moral and spiritual principles.

Finance applies economics, accounting, and mathematics to financial decision-making. Corporate finance analyzes how firms should manage and fund their assets. Courses in finance deal with a wide array of companies, including small firms, companies regulated by governmental bodies, and large corporations that engage in complex international operations. Classes in international finance teach students to assess complex international operations. Classes in corporate finance teach students to assess firm financial decisions as well as their financial health and future. Investment courses prepare students to analyze different mediums of savings and investments. Courses in financial institutions inform students about how such firms manage their assets and liabilities in light of macroeconomic considerations and regulatory restrictions.

Because the discipline of finance is intellectually challenging and rigorous, it not only prepares students for a large number of today's appealing and rewarding careers in business and industry, but also provides excellent background for graduate programs. Graduates of the University's finance program are actively sought by corporate recruiters, who know these students have been well prepared for the world of contemporary finance. Many finance students become financial analysts and managers. Others enter the consulting or legal professions or develop careers in the

various occupations related to investment activity or financial institutions. Many John Carroll University graduates in finance have become high-ranking financial officers of prominent and successful companies or have achieved important positions in banks and governmental agencies active in financial matters.

Major Requirements

Major in Finance: A total of 67-71 credit hours as described below.

Business Core: 43-46 credit hours, including MN 461 or MN 463-464.

FN 312: Prospective finance majors must complete FN 312 with a minimum grade of C.

Major Courses: 24-27 credit hours. AC 310 or 303-304; EC 301, and 302 or 311; FN 316, 342, 440, 441; plus one of the following seven courses: FN 405, 418, 439, 442, 444, 452, or 498.

- **142. PERSONAL FINANCE 2 cr.** Cannot be counted as part of the business minor or finance major. Personal financial decision-making, including use of credit, insurance products, banking, and other financial services, as well as investing for future financial goals.
- **312. BUSINESS FINANCE 3 cr.** Prerequisites: two semesters each of accounting and economics (EC 201-202), and EC 208. Financial problems in organization, operation, expansion, and reconstruction of business concerns, particularly the corporate type.
- **316. FINANCIAL MARKETS AND INSTITUTIONS 3 cr.** Prerequisite: FN 312. Examines the functions financial intermediaries perform in transferring and transforming wealth in financial markets. Provides a broad understanding of the characteristics of domestic and global financial markets and features of instruments that are traded in them.
- **342. INVESTMENTS 3 cr.** Prerequisite: minimum grade of C in FN 312. Principles in the selection and management of investments, from the viewpoints of large and small investors.
- **405. SEMINAR IN FINANCE 3 cr.** Prerequisites: minimum grade of C in FN 312 and/or as announced. Contemporary issues in finance not covered in depth in other departmental courses. Topics, method of presentation, and requirements designated by the seminar leader.
- **418. REAL ESTATE FINANCE 3 cr.** Prerequisite: minimum grade of C in FN 312. Introduction to real estate, with a focus on financial aspects; theory and measurement of returns and risks on real estate and real estate-related assets; valuation theory for owner-occupied and income-producing properties.
- **439. INTERNATIONAL BUSINESS FINANCE 3 cr.** Prerequisite: minimum grade of C in FN 312. Tools and techniques necessary to understand the financial management of the firm in an international environment. Exchange rate determination, risk analysis, transactions denominated in foreign currency, nontraditional trading practices, and the unique problems faced by multinational firms. Exchange rate risk in foreign securities investments.
- **440. INTERMEDIATE CORPORATE FINANCE 3 cr.** Prerequisite: minimum grade of C in FN 312. Expands knowledge of corporate finance developed in FN 312. Involves extensive use of spreadsheet modeling and simulation software to address complex financial problems. Topics

include capital budgeting, financial planning, working capital management, capital structure, and dividend payout policy.

- **441. CASE STUDIES IN FINANCIAL MANAGEMENT 3 cr.** Prerequisites: FN 440 and one other FN course. Practice in analyzing typical problems in financially managing business enterprises. Capstone in the finance sequence, incorporating examples and case studies.
- **442. RISK MANAGEMENT AND INSURANCE FUNDAMENTALS 3 cr.** Prerequisite: minimum grade of C in FN 312. Focuses on the management of business risks whose outcomes are subject to some degree of direct control (e.g., fire damage that may be preventable), as compared to risks whose outcomes are a result of changing market forces.
- **444. MANAGING FINANCIAL RISK WITH DERIVATIVES 3 cr.** Prerequisite: minimum grade of C in FN 312. Introduction to analytical and decision-making processes used to transfer risk with futures and options. Theory and application of pricing, speculating, and hedging techniques in financial markets.
- **452. PORTFOLIO MANAGEMENT 3 cr.** Prerequisites: FN 342 and permission of instructor. Focuses on the Dornam Fund, a student-managed investment portfolio. Provides theory and experience in professional money management; identification of investment objectives, information assessment for security selection, and evaluation of fund performance.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: finance major with an overall GPA of 3.0 or higher; permission of chair and instructor. Research project supervised by a member of the department willing to act as advisor. The student selects an aspect of finance, establishes goals, and develops a plan of study that must be approved by the chair and filed with the dean's office. Consult the chair for departmental guidelines established for such study.



French (FR)

Professor: H. N. Sanko; Associate Professor: M. Pereszlenyi-Pinter (Chair)

The program in French is offered by the Department of Classical and Modern Languages and Cultures. (For general information about the department, see page 167). All courses are taught in French, unless otherwise noted. The mission of the French section is to help students acquire knowledge of the languages, literatures, and cultures of France and Francophone countries. Through beginning, intermediate, and advanced language courses, students develop the skills to read, write, speak, and understand French. Courses on the literatures and cultures of French-speaking communities in France and in other countries of Europe, Africa, the Caribbean, North and South America, as well as the French possessions in the Indian and Pacific Oceans, instill an appreciation of Francophone cultures in their diversity. Extracurricular projects promote active engagement in cultural and linguistic exchanges. In keeping with the broader liberal arts mission of John Carroll University, the French section seeks to train students in the skills of both critical analysis and written and oral argument, skills that they can use in graduate school or in their future professional and personal lives. All students are also strongly encouraged to study in a French-speaking country.

Major and Minor Requirements

Major in French: 36 credit hours, including FR 315 and 325/326 or equivalents.

French track: May include one course (3 credit hours) with French or Francophone content from International Cultures (IC) or approved cognate areas. A comprehensive examination is required.

French Studies track: May include up to 4 courses (12 credit hours) with French or Francophone content from International Cultures (IC) or approved cognate areas. A comprehensive examination is required.

Minor in French: 21 credit hours, beginning at any level. Courses numbered 301-302 are strongly recommended for all majors and minors. "Bridge courses" (those numbered 300 through 320) are also strongly recommended to improve language skills before taking on more advanced language, literature, and culture courses.

101. BEGINNING FRENCH I 3 cr. Introduction to French language and culture, with focus on speaking, listening, reading, and writing. Film; lecture; individual, pair, and group work; computer-assisted instruction. Students learn to ask and answer questions and share information about themselves, their families, and their daily activities. For students with little or no previous exposure to French. (Fall)

102. BEGINNING FRENCH II 3 cr. Prerequisite: FR 101 or equivalent. Continuation of FR 101. (Spring)

- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of French at the beginning level. May be repeated with a different topic.
- **201-202. FRENCH IN REVIEW I, II.** Prerequisite: placement test or FR 102 or equivalent; FR 201 or equivalent Prerequisite for FR 202. Review of beginning French; study of authentic materials dealing with French and Francophone cultures. Builds on all four skills (speaking, listening, reading, and writing), including vocabulary expansion, improved pronunciation, reading strategies, short compositions, and other writing assignments. Classroom, multimedia, computer-assisted instruction. (Fall-201, Spring-202)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of French at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301-302. FRENCH CONVERSATION AND COMPOSITION 3 cr.** Prerequisite: placement test or FR 202 or equivalent. Review of French with a focus on building oral and written proficiency through exposure to various media, including music, television, film, Internet, and print media. (Fall-301, Spring-302)
- **303. SELECTED SHORT READINGS IN FRENCH 3 cr.** Prerequisite: FR 202 or equivalent. Introduction to reading literature in French. Selections of popular, classical, and modern works, including short stories, dramas, and poetry presented in their cultural contexts.
- **304. FRENCH CULTURE THROUGH FINE ARTS AND MUSIC 3 cr.** Prerequisite: FR 202 or equivalent. Study of French literature and visual and other arts (architecture, painting, sculpture, music, and *ballet*); representative sampling of works from various literary periods.
- **306. FRENCH FOR BUSINESS 3 cr.** Prerequisite: FR 202 or equivalent. No previous study of business expected. Emphasis on terminology and practices of commercial French. Introduction to the world of business and technology in France and Francophone countries. Study of socioeconomic issues affecting business; everyday commercial activities such as job interviews, on-the-job routines, banking. Continued development of language skills appropriate to the course topic and level of students. Students have the option to take the examination for the "Diplôme" offered by the Chambre de Commerce et d'Industrie de Paris.
- **307.** THE MEDIA AND POPULAR CULTURE IN FRANCE 3 cr. Prerequisite: FR 202 or equivalent. Representative sampling and comparative analysis of television, radio, and the press, and also as reflected in popular culture.
- **310. FRENCH CINEMA 3 cr.** Prerequisite: FR 202, or 301, or 302, or equivalent. Emphasis on selected films either as genre or as an expression of culture, civilization, language, or a combination of these, depending on the instructor's field of specialization and student interest. Films, instruction, and discussion in French.
- **311. FRENCH CIVILIZATION 3 cr.** Prerequisite: FR 202 or equivalent. Examination through texts, films, and other media of major historical, intellectual, and artistic influences that have shaped French civilization. Identification of values and myths that have contributed to the formation of modern France and continue to influence contemporary French culture.

- **314. FRANCOPHONE COUNTRIES 3 cr.** Prerequisite: FR 202 or equivalent. Ideological and cultural developments in the French-speaking countries of Europe, Africa, and the Americas (Québec, French Antilles, French-speaking U.S.A., and French Guyana). Selected excerpts from works of the literary and artistic production of each country.
- **315. EXPLICATION DE TEXTES 3 cr.** Prerequisite: FR 202 or equivalent. Introduction to French literature and culture through the analysis of the principal literary forms: poetry, drama, and prose. Texts chosen chronologically from French and Francophone literatures. Suggested Prerequisite for all other French literature courses; may be taken simultaneously with other French courses at the 300 level or above.
- **316. CREATIVE WRITING IN FRENCH 3 cr.** Fundamentals and practice of creative writing across genres.
- **319. PARIS-PLAISIR 3 cr.** Prerequisite: FR 202 or equivalent. Historical, literary, and cultural legacy of the city of Paris and surrounding area, through literature (poetry, novel, drama), cultural readings, and discussion of contemporary film.
- **320. FRENCH WOMEN 3 cr.** Prerequisite: FR 202 or equivalent. Female authors and their literary legacy through the centuries. Excerpts from works by Marie de France, Christine de Pisan, Catherine Des Roches, Madame de Sévigné, George Sand, Colette, Marguerite Yourcenar, Simone de Beauvoir, Andrée Chédid, Anne Hébert, Mariama Bâ, Maryse Condé, Assia Djebar, Hélène Cixous. and Julia Kristeva.
- **325, 326. READINGS IN FRENCH LITERATURE 3 cr. each.** Prerequisite: FR 315 or equivalent or permission of instructor. FR 325: Middle Ages through the French Revolution; FR 326: 19th century to present day.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **401. ADVANCED FRENCH CONVERSATION 3 cr.** Subtleties of French phonology, morphology, and syntax, along with the development of advanced vocabulary and conversational techniques. Activities include in-depth discussion and debate of current events and real-life problems as well as oral analysis of readings.
- **402. ADVANCED GRAMMAR, SYNTAX, AND COMPOSITION 3 cr.** Theory and practice of correct grammatical usage based on everyday as well as literary language; guided and creative exercises in advanced composition.
- **465. FRENCH FICTION AND FILM 3 cr.** Discussion of literary texts and their film versions. Focus on the changes in narration, structure, and development of the subject.
- **480. EIGHTEENTH-CENTURY STUDIES AND THE ENLIGHTENMENT 3 cr.** Readings from selected authors and Diderot's *Encyclopedia*.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study for advanced students. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.

German (GR)

Associate Professor: J. Karolle-Berg

The program in German language, literature, and culture at John Carroll prepares students to enter areas such as business, law, education, the nonprofit sector, and government. At all course levels, students engage in active learning through proficiency-based instruction. In addition to developing proficiency in German, students gain an understanding of the cultural perspectives, products, and practices of the German-speaking world; make connections between developments in German literature and culture and trends in history, politics, and society; and strengthen their communicative and analytical skills.

The German minor complements a number of courses of study and allows students to work with faculty to design a program suited to their specific academic goals. The experiential learning component similarly links students' course work in German to their other professional and personal interests through an independent project, internship, or thesis. Occasional upper-level courses in German (GR 306, GR 310, GR 313, and GR 375) may be offered based on demand.

For general information about the language department, see page 167.

Minor Requirements

Minor in German: 21 hours, beginning at any level. One course in a cognate area (e.g., history, political science, philosophy) or up to 3 credits of experiential learning may be applied to the minor.

- **101. BEGINNING GERMAN I 3 cr.** Introduction to German, with focus on speaking, listening, reading, and writing. Students learn to ask and answer questions and share information about themselves, their families, and their daily activities. Open only to students with little or no previous study of German. (Fall)
- **102. BEGINNING GERMAN II 3 cr.** Prerequisite: GR 101 or equivalent. Expansion of skills acquired in GR 101. Students build on their basic knowledge of everyday German-speaking culture (e.g., tourism, transportation, and leisure activities), improve their communicative competence, and develop skills needed for various cultural settings. (Spring)
- **201-202. INTERMEDIATE GERMAN I, II: ISSUES IN GERMAN-SPEAKING CULTURES 3 cr. each.** Prerequisite for 201: GR 102 or equivalent; prerequisite for GR 202: GR 201 or equivalent. Grammar review and practice of speaking, writing, reading, and listening, coupled with themes in contemporary German society, including geography, German history since 1945, popular culture, and multiculturalism. (Fall-201, Spring-202)
- **275. GERMAN PLAY PRODUCTION 1 cr.** Prerequisites: GR 101 or equivalent; permission of instructor and chair. Participation in a German-language play. Meets last 6 weeks of semester. May be repeated for credit.

- **301-302. ORAL AND WRITTEN COMMUNICATION THROUGH POPULAR FORMS I, II 3 cr. each.** Introduction to popular culture (film, literature, music) with a focus on building oral and written proficiency. (Fall-301, Spring-302)
- **306.** THE GERMAN-SPEAKING WORLD TODAY: ISSUES IN ECONOMICS, **POLITICS, AND SOCIETY 3 cr.** Introduction to social systems and issues in the German-speaking world, including education, immigration, the social market economy, and Germany's position in the European Union.
- **310. GERMAN FILM 3 cr.** Important filmmakers from 1910 to the present; their relation to German cultural and social history of the period.
- **313. GERMAN CULTURE SINCE 1945 3 cr.** The cultural resonance of divided and unified Germany, Holocaust commemoration, multiculturalism, and Germany in Europe.
- **375. GERMAN DRAMA: FROM THEORY TO PERFORMANCE 3 cr.** German dramatic theory; interpretation and performance of major German-language dramas.
- **396. EXPERIENTIAL LEARNING IN GERMAN STUDIES 1-3 cr.** Prerequisite: GR 301 or permission of instructor and chair. Directed experiential learning through an independent project or internship. May be repeated for a total of 3 credits.
- **398. INDEPENDENT STUDY 1-3 cr.** Supervised independent study of German language, literature, or culture. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Rotating focus on a specific theme, genre, or era of German literature or culture. Topic announced in advance. May be repeated with a different topic.
- **496. SENIOR THESIS 3 cr.** Prerequisites: permission of instructor and chair. Individual research project developed and written in consultation with appropriate faculty member. Topics approved in fall of student's senior year; thesis written in spring of senior year.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Supervised independent study of German language, literature, or culture. For advanced students. May be repeated with a different topic.
- **499. SEMINAR: SPECIAL TOPICS 1-3 cr.** Rotating focus on a specific theme, genre, or time period in German literature or culture. Topic announced in advance. May be repeated with a different topic.



Greek (GK)

Professor: T. R. Nevin; Associate Professor: G. Compton-Engle; Visiting Assistant Professor: K. A. Ehrhardt

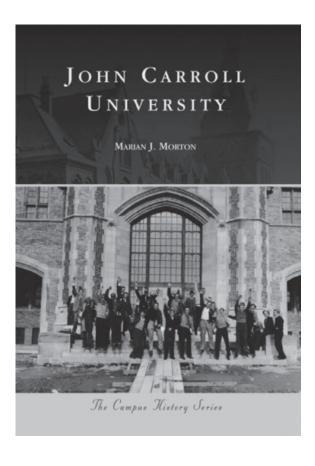
The program in Greek is offered by the Department of Classical and Modern Languages and Cultures.

Major and Minor Requirements

For complete information on the major and minor in Classical Languages and Classical Studies, see page 167. For courses in Latin, see page 263.

- **101. BEGINNING GREEK I 3 cr.** Introduction to ancient Greek, the language of Socrates, Homer, and the New Testament, through study of the fundamentals of grammar and vocabulary. Emphasis on the development of reading skills. (Fall)
- **102. BEGINNING GREEK II 3 cr.** Prerequisite: GK 101 or equivalent. Continued study of ancient Greek language and culture through further acquisition of fundamental vocabulary, grammar, and syntax. Continued reading and discussion of passages. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **232. GREEK AUTHORS 3 cr.** Continued development of reading skills through reading from one selected author, such as Homer, Xenophon, Plato, or Lysias. Discussion of the author's thought and historical context. May be repeated with a different author.
- **280. READING IN THE GOSPELS 3 cr.** Readings from one of the Gospels. May be repeated with a different author. Focus on New Testament vocabulary and syntax.
- **281. THE LETTERS OF PAUL 3 cr.** Readings from the Pauline epistles. Focus on New Testament vocabulary and syntax.
- **301. GREEK WRITING 3 cr.** Practice in writing idiomatic Greek prose.
- 320. PLATO 3 cr. Selected works. Projects on Plato's philosophical theories.
- **330. GREEK HISTORICAL PROSE 3 cr.** Reading from the works of one selected Greek historian, such as Herodotus, Thucydides, or Xenophon. Projects in Greek historiography. May be repeated with a different author.
- **340. HOMER 3 cr.** Readings of selections from the *Iliad* or *Odyssey*. Special attention paid to Homeric vocabulary and syntax, the composition of the epics, the Epic Cycle, and Homer's influence.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.

- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **442. GREEK LYRIC 3 cr.** Poetry from the archaic and classical periods of Greece, including such authors as Archilochus and Sappho. Examination of the themes of love, war, and the symposium. Emphasis on the personal voice and the poet's persona, the cultural context of the poetry, and the genesis of important literary genres.
- **450. GREEK DRAMA 3 cr.** Reading from the plays of one of the following: Aeschylus, Sophocles, Euripides, Aristophanes, Menander. Projects on the origins of drama, historical background, social and political ideas of the times, and staging conventions. May be repeated with a different author.
- **490. HISTORY OF GREEK LITERATURE 3 cr.** Survey of writings from Homer to the Alexandrian period, with extensive readings in the major authors. Reflection of these works in modern literature.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Supervised study on special topics. For advanced students. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.



History (HS)

Professors: M. P. Berg, A. Kugler (Associate Academic Vice President), P. V. Murphy (Vice President for University Mission and Identity), J. H. Krukones (Associate Academic Vice President), D. Kilbride (Chair); Associate Professors: R. W. Purdy, R. J. Kolesar, M. Marsilli; Assistant Professor: J. M. McAndrew; Visiting Assistant Professors: M. D. Bowen, L. J. Reader

History explores the totality of human experience using methodologies drawn from the humanities and the social sciences. The historian uses original sources and the writings of other scholars to offer complex explanations for significant social, cultural, economic, and political developments. History helps students understand long-term transformations and appreciate the contexts of time and place. Students gain a deeper appreciation of their own and other cultures, preparing them to contribute meaningfully to the contemporary world and to understand problems rooted in cultural misunderstandings and political and economic inequities.

Major and Minor Requirements

Major in History: 39 credit hours, at least 18 of which must be at the 300 and 400 level. At least 20 hours must be taken in residence. At least one and a maximum of three 100-level courses, HS 261, and HS 490 or 491 are required. At least two courses in each of the following areas must be taken: American; European; and Asian, African, or Latin American. Also, students must include in their program two courses that concentrate on a period before 1800, and two that concentrate on post-1800 history. Elective courses in the major should focus on a region or theme to be pursued in Senior Seminar or Senior Thesis.

Students seeking licensure in secondary education should consult in timely fashion with the Department of Education and their academic advisor. These programs may entail work beyond the normal four years. Students in the Integrated Social Studies teaching licensure program must complete the following courses as part of their curriculum content requirements: HS 201, 202, 211, 212, 261, 271, 490. Special area studies courses (at least one course from each category; three courses total): Global Studies (including, but not limited to): HS 119, 120, 151; Studies of Asia, Africa, and Latin America (including, but not limited to): HS 170, 180, 274, 280. Upper-division courses: Three 300- or 400-level electives that support a regional or thematic focus.

Minor in History: 18 hours. Six courses with a minimum of *two* at the 100 or 200 level and at least *three* 300-400 level courses. At least one course in two of the following areas: American; European; and Asian, African, or Latin American. Selection of the courses must be approved by the chair or a designated member of the department.

HP 291 (Justice and Democracy in a Global Context) also counts toward the major or the minor in history.

History

Through its Core curriculum course offerings, its major program, and other activities, the History Department fosters the skills, knowledge, and habits of mind that enable students to achieve success at John Carroll and in their later lives and careers. Specific course and program goals for students include:

- Developing academic skills, including analytical reasoning, research techniques, and oral and written communication.
- Integrating historical knowledge with that acquired through other liberal arts disciplines and experiential learning.
- Gaining knowledge of human experience in varied regions and times, and as shaped by social characteristics such as race, gender, religion, nation, and class.
- Providing an opportunity to engage in serious reflection on significant ethical issues and questions of social justice.
- Cultivating within majors a competence in a particular theme, region, or time period sufficient to undertake a significant research and writing project, incorporating original sources and the work of other historians.

Any single course within the program may emphasize one or more of these goals. Students should start with one or more 100-level courses, which introduce students to the study of significant historical topics or themes through the use and interpretation of primary-source materials and historical arguments. Students should then proceed to traditional survey courses at the 200 level or advanced courses at the 300 or 400 level. Majors should take HS 261 (History as Art and Science) in the sophomore year and HS 490 (Senior Seminar) or 491 (Senior Thesis) in the senior year. Seniors are also required to take an exam on their general level of achievement in the major.

In consultation with their advisor, students majoring in history develop a thematic, regional, or chronologically-based concentration suiting their interests within the framework of a balanced program. Majors are urged to seek experiential learning opportunities that may involve internships through the department at a local historical society or course- or service-related travel components. Pertinent courses from other departments may be included in the major program upon the written approval of the student's major advisor. Foreign language study beyond University Core requirements and/or statistics are recommended for students who plan to do graduate work in history.

Students who combine a history major with a second major or a minor or concentration complementing their interest—and with an experiential learning component or internship—put themselves in excellent positions to enter careers in law, business, secondary education, social service professions, nonprofit organizations, or graduate study in history. The department participates in the following interdisciplinary programs: Africana Studies, Catholic Studies, East Asian Studies, International Studies, Latin American Studies, Modern European Studies, and Women's and Gender Studies (see pages 83-90). Program requirements and course descriptions for the Master of Arts in history are published in the *Graduate Studies Bulletin*.

Introduction to History Courses

- **110. THE SPANISH ARMADA 3 cr.** Early modern European political and cultural world as seen through the lens of the clash between Spain and England in the later sixteenth century.
- 112. PROPHECY AND ORDER 3 cr. Introduction to the history of Christian religious communities through an examination of the contributions of ascetic and apostolic figures who have acted as prophetic critics and strong supporters of the Church and the social and political structures of the world in which they lived. Study of the "desert fathers" and "desert mothers," Western monasticism, the mendicant movement of the high Middle Ages, apostolic groups in the modern world, religious communities of women, and contemporary examples of non-traditional intentional communities.
- 113. SAINTS AND SCOUNDRELS: THE JESUITS FROM RENAISSANCE TO REVOLUTION 3 cr. Spirituality, intellectual life, ministry, and political involvements of the Jesuits from their origins in the Renaissance to the present day as seen in a global and historical context.
- **114. REVOLUTIONARY EUROPE 3 cr.** Transformation in European government, economy, society, and culture in the period of the French and Industrial Revolutions.
- 116. WORLD WAR I & MODERNITY 3 cr. Origins of World War I, with particular emphasis on social, political, economic, and strategic factors; the experience of modern industrial warfare in the trenches and in civilian society; the impact of technology on perceptions of warfare; radicalization of political sentiments among revolutionaries and supporters of continued conflict; the peace settlement and its legacy.
- **118. THE WORLD AND THE WEST 3 cr.** Reviews the major non-Western civilizations from 1400-1800. Focus on empire-building mechanisms, cultural exchanges, and identity.
- **120. TWENTIETH-CENTURY GLOBAL HISTORY 3 cr.** Introduction to the major themes of twentieth-century history that have shaped our contemporary world.
- **121. THE COLD WAR 3 cr.** Developments between 1917 and 1991 in U.S.-European and broader international perspective. Circumstances at the end of World War II; alliance formation; the Korean War; censorship in East and West; Cold War influence on domestic political developments in NATO countries; official and dissident culture in Eastern Europe; the "Soviet" model in China, Cuba, and Vietnam; the role of the Middle East; arms race/arms control; collapse of Communist regimes and ramifications of post-Cold War arrangements.
- **125. HUMAN RIGHTS 3 cr.** Survey of thinking on human rights from antiquity to the present, with special attention to the Universal Declaration of Human Rights and other post-1945 developments. Case studies may vary, but will generally include such key human rights concerns as slavery, humanitarian intervention, refugees and displaced persons, post-conflict reconstruction, human trafficking, torture, and the death penalty.
- **131. AFRICAN AMERICAN HISTORY 3 cr.** Overview of black experience from its West Africa roots, through slavery, and finally to freedom in modern America. Focus on leaders, movements, community, and race relations.
- **142. THE UNITED STATES AND THE WORLD 3 cr.** Examines U.S. cultural and diplomatic relationships with the wider world from the colonial period through the present day. Topics include major traditions of U.S. foreign policy, the era through the contemporary period, and debates over the past and future status of the United States as an empire.

- **150. WOMEN IN UNITED STATES HISTORY 3 cr.** Survey of U.S. women's history from the colonial period to the present day. Women's political activism and involvement in social movements; the influence of race and class upon the experience of womanhood; the significance of gender, the body, and sexuality in U.S. history.
- **151. THE ATLANTIC WORLD 3 cr.** Economic, social, and demographic impact of the interactions between Native American, West African, and Western European cultures in the New World from 1450 to 1900. Topics include the slave trade, the development of the French, Spanish, Portuguese, Dutch, and British colonies, Indian-European relations, and the exchange of goods, cultures, peoples, and diseases.
- **152. THE OLD SOUTH 3 cr.** Development of the slaveholding regions of the U.S. from the beginning of European contact through the end of the Civil War. Transplantation of European cultures in the New World, the evolution of a biracial society based on slavery, Southern distinctiveness, and the origins of the Civil War.
- **153. WORKING-CLASS AMERICA 3 cr.** Introduction to U.S. labor history in 19th and 20th centuries; segmentation of labor by race, ethnicity, gender, and region; working-class culture, family, communities; workplace, unionization, role of government in labor relations.
- **154. THE WITCHES OF SALEM 3 cr.** Possible causes of the Salem Village Witchcraft outbreak of 1692 through use of primary sources and conflicting secondary accounts; presentation of the episode to modern audiences through literature and film.
- **155. SPORTS IN AMERICAN SOCIETY 3 cr.** History of sports in America seen both as product and shaper of the surrounding society and culture. Topics examined include relationships between sports and urbanization, economic development, race, and gender.
- **168. THE BORDER/LA FRONTERA 3 cr.** Historical introduction to the U.S.-Mexico border region as both connected to and as distinct from Mexico and the U.S.; the historical presence and continuing migration of Mexicans into the U.S.; the border region's historical, present, and potential impact on American identity and society.
- **170. INTRODUCTION TO LATIN AMERICAN HISTORY AND CULTURE 3 cr.** Surveys the main topics of Latin American history down to the present, emphasizing native peoples, gender roles, military dictatorships, and human rights.
- **180. CONTEMPORARY EAST ASIAN HISTORY 3 cr.** The political, social, economic, cultural, and foreign relations of China, Japan, and Korea since 1945.
- **185. AFRICAN HISTORY THROUGH AUTOBIOGRAPHY 3 cr.** Introduction to the study of modern African history through the lives of both ordinary people and national figures. Examines autobiographical writing as a means for understanding the political, cultural, social, and economic contours of life in several post-colonial African nations.
- **195-197. SPECIAL TOPICS 1-3 cr.** Topics: 195: American; 196: European; 197: Asian, African, or Latin American. Specific title and number of credits announced in the semester course schedule. Directed readings or individual research by permission of chair.

Survey Courses

201, 202. WESTERN CIVILIZATION 3 cr. each. Major ideas, events, and individuals that have shaped European society from its antecedents in ancient times to the contemporary era. 201: earliest times to the sixteenth century; 202: sixteenth century to the present.

- **208. THE IRISH IN HISTORY 3 cr.** Ireland's pasts and impacts on goals of unity and independence; comparison with other European and non-European colonized peoples seeking national and cultural identity; beliefs on "national character" in fiction and film.
- **211, 212. HISTORY OF THE UNITED STATES 3 cr. each.** Survey of U.S. political, economic, social, and cultural history. Emphasizes diversity of the nation's people and how subjective categories—particularly race and ethnicity, class, and gender—have influenced historical behavior and historical analysis. 211: through the post-Civil War era; 212: from the end of Reconstruction to the present.
- **261. HISTORY AS ART AND SCIENCE 3 cr.** Exploration of history as a way of knowing and communicating the past; historiography, research, and writing methodology; developing a historical perspective. Designed for prospective majors; does not offer Division II core credit.
- **271. WORLD GEOGRAPHY 3 cr.** Thorough review of place geography; relationships between humans and the physical environment, including climate, soils, resources, and landforms. Analysis of regional areas. Does not offer Division II core credit.
- **273. COLONIAL LATIN AMERICAN HISTORY 3 cr.** Colonial period in Latin America (to 1810). Focus on the impact of the European conquest over the native groups, the effects of conversion to Catholicism, and subsequent changes in gender roles.
- **274. MODERN LATIN AMERICAN HISTORY 3 cr.** Main issues involved in the making of modern Latin America (1810 to present). Identity formation processes, military history, gender problems, and human rights topics.
- 275. LATIN AMERICAN DICTATORSHIPS: GLOBALIZATION, U.S. FOREIGN POLICY, AND HUMAN RIGHTS 3 cr. Introduction to military-run regimes in Latin America as a way to understand the global influences at work in the area. The impact of dictatorships upon human rights, as well as of the multi-layered responses by civil societies to cope with state-run terrorism. Impact of U.S. foreign policy in Latin America.
- **279. PRE-MODERN EAST ASIAN HISTORY 3 cr.** China, Japan, and Korea from their pre-historic origins to the mid-nineteenth century. The contribution of their cultural foundations and traditions to modernization and the impact of their historical development on contemporary events.
- **280. MODERN EAST ASIAN HISTORY 3 cr.** Impact of imperialism, revolution, and war from the mid-nineteenth century to the present on East Asian modernization and globalization; focus on China, Japan, and Korea.
- **283. JAPANESE POPULAR CULTURE 3 cr.** Focuses on the culture of ordinary Japanese—their interests, lifestyles, consumption, activities—rather than those of the elites. Covers the period from the 17th-century Tokugawa Era to present day.
- **295-297. SPECIAL TOPICS 1-3 cr.** Topics: 295: American; 296: European; 297: Asian, African, or Latin American. Specific title and number of credits announced in the semester course schedule. Directed readings or individual research by permission of chair.

Advanced Courses

- **300. HISTORY OF THE ANCIENT NEAR EAST (TRS 300) 3 cr.** History, culture, and religion of Egypt, Mesopotamia, and Syro-Palestine.
- **301. ANCIENT GREEK HISTORY (CL 301) 3 cr.** Greek history from the Minoan period through the zenith of Athenian democracy, to the conquests of Alexander and eventual incorporation into the Roman empire. Special emphasis on Greek cultural achievements.

- **302. ROMAN HISTORY (CL 302) 3 cr.** History of Rome from its humble beginning, through the Roman Republic, to the creation and collapse of the Roman empire. Attention paid to all aspects of Roman life, from family and social structure to political institutions.
- **305. ROME: CITY OF EMPERORS, POPES, AND SAINTS 3 cr.** History and culture of the city of Rome from the classical and imperial age to the sixteenth century. Focus on the institutions and historical figures that have been prominent in the shaping of the city and its history. Highlighted by a one-week, on-site learning tour of Rome during spring break.
- **310. WOMEN IN EUROPE SINCE 1500 3 cr.** Examination of the legal, economic, domestic, and ideological status of women in the early modern period and the impact of the Reformation, Enlightenment, French and Industrial Revolutions, and world wars on women, as well as women's contributions to these events.
- **321. NINETEENTH-CENTURY EUROPE 3 cr.** Political, social, cultural, and economic developments in Western Europe, particularly industrialization, democratization, and imperialism from the end of the French Revolution to the eve of World War I.
- **326. TWENTIETH-CENTURY EUROPE 3 cr.** Political, social, and economic developments from approximately 1900 to the post-9/11 era. Emphasis on the impact of the world wars, right and left radical regimes, the Cold War, and European attempts at unity and self-determination.
- **332. BERLIN: FROM REICH TO REPUBLIC 3 cr.** German history and politics from 1918 to the present, employing Berlin as the focal point for significant developments. The interwar republic and the rise of the Nazis; the Third Reich; postwar occupation and Cold War division; political systems and society in East and West Germany; Berlin as capital of a reunified Germany in an increasingly integrated Europe. Culminates in a week-long study tour in Berlin during spring break.
- **333. HISTORY ON FILM 3 cr.** Cinematic recreations of the past and ways of assessing them, especially as compared with written history; documentaries and dramatic features as historical sources that reflect their eras of origin.
- **336. THE HOLOCAUST 3 cr.** Racism and anti-Semitism in modern Europe; Nazi propaganda and legal measures against German Jews in 1930s; transition from discrimination to Europewide genocide during Second World War; experiences of victims and perpetrators; postwar Holocaust denial; impact of the Holocaust on memory in Germany, the U.S., and elsewhere since 1945
- **341. RACE AND SEX IN AMERICAN POPULAR CULTURE 3 cr.** How nineteenth- and twentieth-century American popular culture has reflected and contributed to the construction of racial identities, particularly in popular culture's use and treatment of sexual themes.
- **342. IMMIGRANT AMERICA 3 cr.** Immigration and ethnicity in nineteenth- and twentieth-century America; emphasis on voluntary migrants. Topics include expectations and adaptations of particular ethnic groups, tensions between group identity and assimilation, and response of native-born Americans to immigrants and immigration.
- **343. SLAVERY AND ABOLITION 3 cr.** Development of African slavery in the Western hemisphere in the early modern period. Themes include the African background, the European origins of chattel slavery, the development of racism, labor, resistance, community life, religion, and the abolition movement.
- **357.** U.S. MILITARY HISTORY 3 cr. Overview of the development of the American armed forces and their role in society. The place of war in U.S. history; professionalization of the military; analysis of battlefield experience.

- **371. OUR UNRULY DAUGHTERS: WOMEN AND THE CATHOLIC CHURCH IN EARLY MODERN SPAIN AND LATIN AMERICA 3 cr.** Focus on the relationship between women and the Catholic Church in early modern Spain and colonial Latin America. Includes women who found an intellectual shelter in the Church, as well as those in trouble with the Inquisition because of religious deviance.
- **372. RACE AND GENDER IN LATIN AMERICA 3 cr.** Considers the role of women (European, black, and Indian) and different ethnic groups (whites, Indians, and peoples of African descent) in the making of Latin American history. Special attention is paid to the socially-based construction of ethnicity.
- **381. JAPANESE HISTORY 3 cr.** Development of Japanese culture, society, politics, and economics from prehistory to modern times.
- **382.** CHINESE HISTORY 3 cr. Social, political, economic, and cultural development of China from earliest to modern times.
- **395-397. SPECIAL TOPICS 1-3 cr.** Topics: 395: American; 396: European; 397: Asian, African, or Latin American. Specific title and number of credits announced in the semester course schedule. Directed readings or individual research by permission of chair.
- **405. ROME: CITY OF EMPERORS, POPES, AND SAINTS 3 cr.** History and culture of the city of Rome from the classical and imperial age to the sixteenth century. Focus on the institutions and historical figures that have been prominent in the shaping of the city and its history. Highlighted by a one-week, on-site learning tour of Rome during spring break.
- **406. MEDIEVAL SOCIETY AND INSTITUTIONS 3 cr.** Various forces at work in the development of the political, religious, and cultural institutions of the Middle Ages from 500 to 1500.
- **411. RENAISSANCE EUROPE 3 cr.** Political, intellectual, and cultural developments in Renaissance Italy. The movement of Renaissance culture into Northern Europe, emphasizing the continuity and differences with the Italian Renaissance.
- **412. REFORMATION EUROPE 3 cr.** Breakup of the unity of Christendom. Emphasis on the major Protestant reform movements (Lutheranism, Calvinism, Anglicanism) and the Catholic Reformation.
- **415. EARLY MODERN FRANCE 3 cr.** Development of the French monarchy from Francis I to Louis XV; the effects of the Renaissance, Reformation, Scientific Revolution, and Enlightenment on French society.
- **416. EARLY MODERN ENGLAND 3 cr.** Political, social, economic, religious, and cultural development of England from the War of the Roses through the Glorious Revolution.
- **417. FRENCH REVOLUTION AND NAPOLEON 3 cr.** Eighteenth-century society and culture; liberal and radical revolutions; impact on Europe and the world.
- **420. WOMEN AND GENDER IN MODERN AFRICA 3 cr.** Investigates the construction of gender within several modern African societies; the effect of religion, social customs, and economic conditions on women's lives; women's impact on political systems, from local activism to national governance; sexuality in modern Africa.
- **431. TOPICS IN COLONIAL AMERICAN HISTORY 3 cr.** Social, political, religious, economic, and cultural development of England's North American colonies from first settlement to mideighteenth century.

- **432. AMERICAN REVOLUTIONARY ERA 3 cr.** The Revolution as a colonial war for independence and as a struggle for reform within America. Examines achievement of these goals as a new nation created.
- **433. TOPICS IN THE EARLY AMERICAN REPUBLIC, 1789-1828 3 cr.** Social, cultural, political, and economic development of the U.S. from the beginning of constitutional government to the election of Jackson.
- **436. ANTEBELLUM U.S. 3 cr.** U.S. history from 1815 until 1861. Focus on social and cultural issues, including women's lives, Indian cultures, economic developments, social reform movements, political culture, slavery and the South, and the origins of the Civil War.
- **438.** THE CIVIL WAR AND RECONSTRUCTION 3 cr. Social and political origins of the Civil War in the Old North and Old South, the secession crisis, military strategy, soldiers' lives, leadership, the home front, women's experiences, emancipation, and political and social reconstruction.
- **439. GILDED AGE AMERICA 3 cr.** The United States from the 1870s through 1910s; major emphasis on business, labor, immigration, urban, and political history; progressive reform as a response to industrialization.
- **441. NEW DEAL AMERICA 3 cr.** The United States from the 1920s through the 1940s; major emphasis on the social and political significance of the Great Depression and New Deal of the 1930s. Political realignments; national welfare, regulatory, and administrative policies; business and labor; rural America and agricultural policies; local impacts.
- **442. UNITED STATES SINCE 1945 3 cr.** Significant events and trends of the postWorld War II period. Origins of the Cold War, McCarthyism, the civil rights and women's movements, the Vietnam War, and recent developments in foreign and domestic policies.
- **444. MODERN AMERICAN WOMEN'S HISTORY 3 cr.** The cultural, political, economic, and social challenges confronted by women in the United States from the early 20th century to the present day. Explores contemporary feminist thought, gender studies, and queer theory.
- **447. UNITED STATES CONSTITUTIONAL HISTORY 3 cr.** Development of the American constitutional system and interaction with other strands of the nation's history, including political, social, economic, and religious. Focus on decisions of the Supreme Court.
- **452. MODERN JAPANESE HISTORY 3 cr.** Japan's rise as a world power, from the late Tokugawa Era (nineteenth century) to its postwar comeback. (HS 280 or 381 suggested as preparation, but not required.)
- **453. MODERN CHINESE HISTORY 3 cr.** Political, cultural, social, and economic changes in China from the arrival of Westerners through the postMao era. (HS 280 or 382 suggested as preparation, but not required.)
- **456. RELATIONS OF THE PACIFIC RIM 3 cr.** International, military, economic, and social relations among the cultures and nations of the Pacific Rim. Focus on the nations of the Northern and Western Pacific.
- **464. GENOCIDE AND WAR CRIMES 3 cr.** Examines the period from the First World War to the present. Close study of the evolution of international understanding of genocide, crimes against humanity, and human rights violations through selected case studies. Focus on social, political, economic, and cultural factors in the perpetration of atrocities. Development of human-rights protections and adjudication; also, the potential for reconciliation.

- **473. NAZI GERMANY: ORIGINS, STRUCTURES, CONSEQUENCES 3 cr.** Turbulent German circumstances resulting from the Revolutions of 191819, the rise of the Nazi Party, establishment of the Nazi state, and the politics of race and genocide. Examines ways that postwar historians have approached the rise of National Socialism and the controversy over the singularity of Nazi crimes against humanity.
- **474. GERMANY SINCE 1945: RECONSTRUCTION TO REUNIFICATION 3 cr.** History of East and West Germany from the collapse of Nazism. Occupation, denazification, and reconstruction; integration into rival Cold War alliances. Social and economic security, political stability, and cultural criticism in the West; East Germany as the showcase of the Eastern Bloc under state socialism from the 1960s through the 1980s. Peaceful revolution in 1989, reunification, its social and economic costs, and the European response; reflections on the Nazi and Stalinist pasts.
- **476.** IN THE NAME OF THE INCAS: FROM IMPERIAL SPLENDOR TO COLONIAL COLLAPSE AND MESSIANIC RETURNS 3 cr. Incas' imperial splendor and subsequent collapse as a result of the Spanish conquest. The role of the Incas as a utopian model of social organization among the native peoples of the Andean region.
- **477. CHE GUEVARA: THE MAN, THE ICON, HIS TIMES 3 cr.** The life and accomplishments of Ernesto "Che" Guevara in the context of Cold War U.S. and Latin American foreign relations, colonialism, and social justice ideals.
- **486.** RUSSIA: KIEVAN, MUSCOVITE, IMPERIAL 3 cr. The major stages of pre-Soviet Russian history. Territorial expansion, creation of tsarist autocracy, socioeconomic development, and modernization, culminating in the Revolution of 1905.
- **488. RUSSIA IN REVOLUTION, 1900 TO THE PRESENT 3 cr.** Russia's turbulent history since 1900. Fall of tsarism, Bolshevik seizure of power and creation of the Soviet Union, Leninism and Stalinism, Second World War and Cold War, Gorbachev's reforms, collapse of the USSR, and postSoviet developments.
- **490. SENIOR SEMINAR 3 cr.** Prerequisites: HS 261 and five additional courses in the major. The culminating experience of the history major, requiring students to demonstrate historical skills through common readings, class discussion, and written assignments.
- **491. SENIOR THESIS 3 cr.** Prerequisites: HS 261, five additional courses in the major, and permission of chair. Individual research project developed and written in consultation with appropriate department member. Typically restricted to students with a 3.5 GPA overall. Especially recommended for students pursuing graduate study in history.
- **495497. SPECIAL TOPICS 13 cr.** Topics: 495: American; 496: European; 497: Asian, African, or Latin American. Specific title and number of credits announced in the semester course schedule.
- **498. INTERNSHIP 1-6 cr.** Prerequisites: 2.7 average in history courses and permission of chair; open to majors only. No more than 3 credits may be applied to the major. Supervised work, typically in museums, archives, public history sites or agencies, relevant to major sequence of study. Journal and reflective paper required in addition to work responsibilities. Internships must be planned in advance with supervising faculty member.
- **499. INDEPENDENT STUDY 1-3 cr.** Prerequisites: permission of project advisor and department chair. Directed reading or individual research.

Honors Program (HP)

The Honors Program provides a community in which high-achieving undergraduates are challenged to pursue the magis of intellectual curiosity, critical analysis, rhetorical eloquence, and academic leadership.

The Honors Program offers a flexible curriculum, designed for outstanding students, including seminars, honors courses, and other unique opportunities to encourage students to learn, to serve, and to achieve excellence.

Entering first-year students who qualify based on high school records, including grade-point average, standardized test scores, strength of high school curriculum, demonstrated writing skills, and co-curricular engagement may be invited to apply by the director of the Honors Program, but any prospective student may apply for admission into the program.

Students who have completed at least one semester at John Carroll, and transfer students who have an outstanding academic record, can also apply for admission to the program. Interested students should contact the director of the Honors Program for details of the admission process and visit our website at http://sites.jcu.edu/honors.

Once admitted to the program, students are expected to maintain active participation in its activities and to demonstrate a commitment to high academic standards and intellectual growth. Progress towards completion of honors requirements will be subject to annual review.

Honors Program Requirements. To graduate from the Honors Program, honors students must satisfy the following requirements.

- First-Year Honors Colloquium (HP 101). This team-taught interdisciplinary seminar is required of all entering first-year students. Specific topics vary. Students who enter the Honors Program after the first year may take HP 101 or substitute another Honors course for the First-Year Honors Colloquium.
- 2. Honors-designated Courses. An honors student must take at least six "H" courses: at least two must be above the "intro level" (i.e., 100-level); and at least three must be from three different divisions of the Core. It is strongly recommended that at least one of these courses be a 300-level (or above) course. These "H" courses are normally three-credit courses; only one two-credit "H" course may be applied to this requirement. One-credit courses do not count as one of the six "H" courses.

"HP" classes and seminars at the 200, 300, or 400 level may replace one or more of the required "H" courses. However, HP 101 and 450 may not replace one of the "H" course requirements. One Honors Option course may replace one of the "H" course requirements. Specific guidelines and procedures for the Honors Option are available online and from the director.

- "H" and "HP" courses may satisfy part of the University Core or major, minor, or concentration requirements as well as part of the requirements for the Honors Program, and thus may serve two purposes.
- 3. Additional Competency. To demonstrate that they have built a broad perspective from which to reflect on the world and its needs, all honors students must complete an additional competency beyond their major program. This requirement may be met in a number of ways: through a second major, a minor, or a University-recognized interdisciplinary concentration; through a semester or more of University-approved study abroad credit (twelve or more credits); through a year of language (six or more credits) beyond the intermediate level; or through a year of calculus (from the sequence MT 135H-136H-233 or equivalent). At least one-half of the credits used to meet this requirement must be met through course work at John Carroll University or an approved study abroad program.
- 4. Senior Honors Requirement. Students must complete a senior project with a faculty advisor and submit it to the Honors Program for approval. All Honors Program students must complete HP 349 in the semester before they plan to write the Senior Honors Project. For the Senior Honors Project itself, students may register either within a department or for HP 450. Students should normally register for HP 450 (or its equivalent) in the fall semester of their senior year. Guidelines for proposals and procedures are available online and from the director.
- Superior Scholarly Achievement. Students must show an overall record of superior scholarly achievement, usually demonstrated by a GPA of 3.5 or higher.

With the guidance of faculty and academic advisors, honors students are expected to take an active role in planning their academic programs. To facilitate such planning, honors students may, upon recommendation of the director of the Honors Program, be exempted from 3-12 hours of selected Core courses by the dean of the College of Arts and Sciences. In addition, honors students are encouraged to create their own majors (e.g., bioethics, history of world religions, Japanese studies, Western European political economy). Such self-designed majors must have a coherent focus, be well conceived, and explore areas not within the normal range of majors. They also must be approved by the director of the Honors Program and the appropriate dean.

For further details on the requirements and privileges of the Honors Program, please consult the Honors Program director, or visit our website at http://sites.jcu.edu/honors/.

"H" COURSES. These courses are special sections of classes taught within departments. Such courses are open to all students who meet course Prerequisites, not exclusively honors students. These courses usually are smaller in size, approach the topic from a slightly different perspective, draw upon more original sources, and provide a unique opportunity to engage in learning with an instructor. The particular courses will be announced in the semester schedule.

- **101. HONORS COLLOQUIUM 3 cr.** Interdisciplinary and team-taught, with instructors from two different disciplines bringing their expertise to bear on a focused topic. The colloquium develops critical thinking and oral and written communication skills. Normally taken in the spring semester of the first year. Required for all honors students.
- **290. HONORS SPECIAL TOPIC COURSE 1-3 cr.** Cross-listed with a course taught in a particular department. When a departmental course seeks a broader audience or approaches a topic in an unusual manner that may be of particular interest to honors students, it may be cross-listed with the Honors Program. Subject announced in the semester schedule.
- **299. HONORS PRACTICUM 1 cr.** For students on the Student Honors Advisory Council. Students will be responsible for planning, coordinating, and evaluating Honors Programsponsored experiential learning activities in Cleveland and nearby areas. A commitment of 50 hours of activities for the semester is expected. Students are required to submit a final paper documenting and evaluating their activities and making recommendations for future Honors programming. May be taken for credit a maximum of two times; credit does not apply toward any specific degree requirements.
- **300. HONORS SPECIAL TOPIC SEMINAR 1-3 cr.** Interdisciplinary seminar that focuses on a particular topic not ordinarily covered by established departmental seminars or courses and draws on relations among a variety of fields. Subject announced in the semester schedule.
- **349. WRITING THE SENIOR HONORS PROJECT PROPOSAL 1 cr.** Required of all Honors Program students. A Prerequisite for writing the Senior Honors Project that must be completed in the semester before students plan to write the Project. Ideally taken in spring semester of junior year, in fall of senior year only by permission of Honors Program director. Intended to help students complete a research proposal for the Senior Honors Project. Students must earn a "Pass" in HP 349 in order to begin work on the Senior Honors Project. Pass/Fail.
- **390.** HONORS SPECIAL TOPIC COURSE 1-3 cr. Cross-listed with a course taught in a particular department. When a departmental course seeks a broader audience or approaches a topic in an unusual manner that may be of particular interest to honors students, it may be cross-listed with the Honors Program. Subject announced in the semester schedule.
- **391. HONORS INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Independent study of a specific topic, approved by the director of the Honors Program.
- **450. SENIOR HONORS PROJECT 3 cr.** Independent study project under the direction of a faculty advisor. Approval of the advisor, the director of the Honors Program, and the dean of the College of Arts and Sciences is required prior to registration. Forms and procedures are available from the Honors Office and the website.
- **490. HONORS SPECIAL TOPIC COURSE 1-3 cr.** Cross-listed with a course taught in a particular department. When a departmental course seeks a broader audience or approaches a topic in a manner that may be of particular interest to honors students, it may be cross-listed with the Honors Program. Subject announced in the semester schedule.

Human Resources Management (HR)

Assistant Professors: A. M. Dachner, R. F. Miguel; Visiting Assistant Professor: M. P. Malone

The human resources management major (HR) provides students with the in-depth knowledge necessary to assist organizations in the effective utilization of employee skills and talents. Its overall goal is developing an intensive understanding of the concepts and techniques needed to acquire, cultivate, and utilize an organization's human resources. HR management students develop skills related to employee performance assessment, workforce planning, compensation administration, the facilitation of organizational change, and the application of employment law. The major also strengthens skills related to applied research, logical reasoning, and verbal and written communication. Ultimately, the HR management major provides students with skills and knowledge that are relevant to the current and future needs of organizations.

The HR management major is best suited for those who have a strong interest in the human element of organizations and how it can contribute to organizational success. This prepares graduates for positions in almost every business, government, and civic enterprise. The major is designed primarily for students who intend to pursue careers in the HR field, including positions such as human resources specialists or managers, benefits administrators, compensation analysts, staffing managers, human resources analysts, organizational performance managers, personnel administrators or directors, training managers, recruiters, and employee relations managers. HR-related careers involve a shared emphasis on leading employees and coworkers toward common goals, worker empowerment and productivity, and organizational excellence.

Requirements

Major in Human Resources Management: A total of 63-66 credit hours as described below.

Business Core: 43 credit hours, including MN 463.

Major Courses: 24 credit hours. HR 352, HR 370, HR 373, HR 376, PS 459, HR 495, and any two of the following elective courses: HR 353, HR 405, HR 415, HR 420, HR 460, and MN 395.

Professional Experience: Majors must have relevant professional work or volunteer experience prior to graduation. This requirement must be satisfied by completing HR 401.

- **352. HUMAN RESOURCES MANAGEMENT 3 cr.** Prerequisite or corequisite: MN 325 or PS 359. Introduction to the theories and practices of corporate personnel management. Topics include planning, staffing, training and development, reward systems, labor relations, personnel law, and international human resource management.
- **353. LABOR RELATIONS 3 cr.** Prerequisite or corequisite: HR 352 or PS 359, or permission of chair. Study of relationships between corporations, labor, and government. Topics include labor history, law, and economics; institutional aspects of collective bargaining and contract administration; and theoretical and experiential perspectives on negotiation.
- **370. STAFFING 3 cr.** Prerequisite: HR 352 or PS 359, or permission of chair. Issues and practices related to corporate acquisition of human resources, including HR planning, job analysis, recruitment, selection strategies and practices. Emphasis on designing and analyzing practices that maximize utility, return on investment, and government regulation compliance.
- **373. TRAINING AND MANAGEMENT DEVELOPMENT 3 cr.** Prerequisite or corequisite: HR 352 or PS 359, or permission of chair. Study of the issues and practices related to the development of skills and knowledge needed for job performance and improved productivity. Topics include needs assessments, learning styles, implementation and evaluation of training, training techniques, techniques for managerial skill development, improved job performance and productivity, and calculating training return on investment. As a project, students create and conduct a training program for fellow students.
- **376. COMPENSATION 3 cr.** Prerequisite: HR 352 or PS 359, or permission of chair. Study of issues and practices related to corporate reward practices. Topics include job analysis, job evaluation, and performance appraisal theory and techniques, incentive and fringe benefit systems, and the legal issues related to compensation management.
- **401. PROFESSIONAL EXPERIENCE 0 cr.** Prerequisite: permission of instructor. Verifies that an HR major has completed the professional work experience requirement. Prior to starting work (whether in an internship, part-time job, or volunteer opportunity), the student should seek pre-approval from the instructor and only then may register for this course. A student will receive a passing grade only after the work experience requirement has been satisfied and approved by the department chair or instructor.
- **405. CURRENT ISSUES IN HUMAN RESOURCES MANAGEMENT 3 cr.** Prerequisite: HR 352 or PS 359, or as announced. In-depth coverage of selected contemporary issues in HR management. Topics include international HR management; management consulting; resourcing entrepreneurial organizations; HR development; employee benefit planning; occupational safety, health and security; corporate sustainability.
- **415. MANAGING CONFLICT AND NEGOTIATIONS 3 cr.** Prerequisite or corequisite: MN 325 or PS 359. Emphasizes understanding and practicing techniques for managing workplace conflicts, including mediation, negotiation, and arbitration. Develops the negotiation skills necessary to manage organizational stakeholders effectively.
- **420. HUMAN RESOURCES INFORMATION SYSTEMS 3 cr.** Prerequisite: HR 352 or PS 359, or permission of chair. Selection of software, components, types and development of information systems, and their uses in the HR field. Also, relevant technology issues, such as security, privacy and ethics, and HR data for enterprise management.
- **460. EMPLOYMENT LAW 3 cr.** Prerequisite: HR 352 or PS 359, or permission of chair. Overview of employment laws, reasonable accommodation, employer unfair practices, occupational safety and health, negligent hiring, and unlawful harassment. Includes lectures, readings, and cases to facilitate an understanding of the development, intent, and implications that employment laws and regulations have on corporate human resource policy.

495. ADVANCED HUMAN RESOURCES MANAGEMENT 3 cr. Prerequisite: HR 352 or PS 359, PS 459, or permission of chair. Discussion of advanced topics in human resources. Topics include HR strategy, organizational development, ethics, sustainability, corporate/social responsibility, global HR, role of the HR professional as internal consultant, change management, mergers, acquisitions, reductions in force, and trends in HR. Focus on strategies for self-management, team building, and delegation. A project is required.

498. INDEPENDENT STUDY 1-3 cr. Prerequisites: overall GPA. of 3.0 or higher, and permission of chair and faculty member. Research project supervised by a member of the department willing to act as advisor. The student selects an aspect of human resources, establishes goals, and develops a plan of study that must be approved by the chair and filed with the dean's office. Consult the chair for department guidelines established for such study.



Humanities

Associate Professors: L. A. Koch, L. S. Curtis, G. B. Guest; Assistant Professor: B. Liu

The humanities major is a self-designed major in the liberal arts administered by the Department of Art History and Humanities. Course work is derived from the disciplines of art history, literature, history, theology and religious studies, and/or philosophy. Inquiries may be directed to the chair of the Department of Art History and Humanities.

Humanities Major

The humanities major focuses on the artistic, historical, religious, philosophical, and literary aspects of world cultures. This rigorous and flexible major provides a solid undergraduate education in the liberal arts that is self-designed to meet the needs and interests of the individual at any level of experience. The humanities major allows the student to explore specific periods, cultures, themes, or subjects, and to integrate the knowledge of various disciplines in a unique fashion. Areas of focus may include medieval and Renaissance studies, 19th-century studies, 20th-century studies, American studies, Asian studies, French studies, classical studies, studies in art and religion, or other themes designed by the student. Courses are selected with the approval of a major advisor in the Department of Art History and Humanities.

The major is not only excellent preparation for graduate and professional study in a variety of fields, but also a solid foundation for careers in law, medicine, international business, management, journalism, publishing, public radio and television, literature, and criticism. In addition, it has proven especially exciting for those interested in foreign-language studies, as well as for those returning to college to pursue their degree after a successful career.

Humanities Minor

The humanities minor can complement or augment any major field of study, and is especially useful for those interested in the sciences, business, and professional studies. Selection of courses should be made in consultation with the chair or a designated advisor in the Department of Art History and Humanities.

For information about graduate work in humanities, contact the Institute of Humanities, or check the *Graduate Studies Bulletin*.

Major and Minor Requirements

Major in Humanities: 33 credit hours in addition to the B.A. Core divisional requirements, at least 21 of which must be at the 300 or 400 level. The 33 hours are divided into three academic areas, as follows:

12 credit hours in Art History

12 credit hours in Literature (in original language, if possible)

9 credit hours in History, Theology and Religious Studies, and/or Philosophy

To insure interaction of the various disciplines listed above, at least 18 of the 33 hours will be focused in an area of scholarly interest such as medieval and Renaissance studies, 19th-century studies, 20th-century studies, American studies, Asian studies, French studies, classical studies, studies in art and religion, international studies, or other themes designed by the student. The remaining courses chosen to complete the major depend on the individual student's interests. The additional hours of free electives beyond the University Core and the humanities major requirements allow the student to: 1) strengthen the area focus; 2) prepare for graduate study in one of the above fields; 3) pursue a related or different major or minor.

Language: While there is no additional language requirement beyond the Core for the humanities major, a reading knowledge of French, German, or another modern or classical language at the intermediate level is *strongly recommended*. This knowledge will enable the student to do research in depth and to pursue graduate study.

Minor in Humanities: 18 credit hours in addition to the Core divisional requirements, at least 12 of which must be at the 300 or 400 level. The minor requirements are divided as follows:

6 credit hours in Art History

6 credit hours in History, Theology and Religious Studies, and/or Philosophy 6 credit hours in Literature (in original language, if possible)

These courses must be related to an area focus such as medieval and Renaissance studies, 19th-century studies, 20th-century studies, American studies, French studies, Asian studies, classical studies, or others designed by the student.

International Business with Language and Culture (IB)

Professors: J. H. Martin (Co-Director), P. R. Murphy, Jr., W. O. Simmons; Associate Professors: L. R. Cima, B. Z. Hull, S. K. Kahai; Assistant Professors: S. B. Moore, L. G. Ferri (Co-Director); Instructor: J. J. Cabusas

International business focuses on the challenge of solving business problems within international contexts. The International Business with Language and Culture (IBLC) major prepares students to meet this challenge. Through a combination of demanding courses and international and domestic experiential activities, the major attracts students seeking to develop the ability to lead and to serve in the global business environment. Specifically, students completing the major will acquire:

- 1. Proficiency in a second language and culture.
- An understanding of, and, appreciation for, cultural variations in behaviors and values.
- 3. The ability to analyze international business contexts (e.g., markets, financial arrangements, currencies, transactions).
- 4. The ability to analyze change, risk, and uncertainty, and how change will affect the performance of people, products, and organizations across cultures.
- 5. The ability to adapt to different cultures and the flexibility to tackle organizational challenges in a different cultural milieu.

Becoming men and women for others through global engagement is fundamental to the mission of John Carroll University. Including language and culture studies with the study of international business is an excellent way to develop that sense of global engagement.

In business, language fluency and cultural expertise are no longer simply attractive competencies. They are critical for leadership in organizations. In an increasingly competitive world economy, a proficiency in a second language and culture is crucial to excel in the commerce, politics, and society of today's global marketplace.

Through a combination of curricular and experiential activities, the IBLC major prepares students for a wide variety of exciting career opportunities. To pursue careers in international business, students may focus their course work and internship experiences on one of at least three general areas: international marketing (analysis, development, and promotion), international logistics and supply chain management, and international financial management.

Combining language and culture with business in both course work and experiential activities produces students who are well prepared for the unique challenges and problems encountered in international business.

Major and Minor Requirements

Major in International Business with Language and Culture: In addition to 54 credit hours of University Core, a total of 60-78 credit hours as described below.

Language and Culture: 0-18 credit hours. Proficiency in a second language typically demonstrated by satisfactorily completing the 301-302 series of language classes is required. This may add up to 12 additional hours of language courses depending on the student's language preparation prior to coming to John Carroll. Six credit hours of country-specific culture classes are also required. The country-specific classes may be counted toward University Core requirements. See IB-designated core courses listed on each semester's schedule of classes.

Business Core: 43 credit hours, including MN 461.

Major Courses: 21 credit hours. IB 301, IB 302, IB 303, IB 495 plus three pre-approved international business courses to be taken during the student's semester abroad. In addition, IB 490 (0 credit) and IB 491 (0 credit) must be completed for the internship requirements of the program.

Experiential Requirements: This major requires a study-abroad semester in a country of the student's language of study, typically during the spring semester of the junior year. Students must apply through the Center for Global Education by the deadline prior to the semester of study abroad, and the location must be approved by the IBLC co-directors. The student is also required to engage in two pre-approved internships: first, with an organization in the study-abroad country (or another country that uses the student's language of study); second, with an organization in the U.S. that conducts business in that country.

Additional Requirement: Students must maintain a minimum GPA of 2.5 overall and for their business courses in order to fulfill the study-abroad semester requirement and to graduate with a major in IBLC.

301. CULTURE AND CHANGE 3 cr. Prerequisites: SC 101 or SC 245 and EC 201-202. Uses a historical and behavioral lens to analyze how culture can affect economic, social, political, and organizational change, and how these changes can affect different cultures. Major historical changes and their consequences in shaping culture are explored and related to contemporary societies. Should be taken in the fall semester of junior year.

302. INTERNATIONAL TRANSACTION INSTRUMENTS AND PROCESSES 3 cr. Prerequisite: FN 312. Covers the financial and logistical aspects of international transactions. Topics may include international trade agreements, foreign currency and exchange rates, exchange rate risks and uncertainties investment in international markets, credit and transaction instruments, international commercial terms, import and export documentation, freight forwarding, subsidies and tariffs, and security issues. Should be taken in senior year.

International Business with Language and Culture

- **303. UNDERSTANDING INTERNATIONAL MARKETS 3 cr.** Prerequisite: MK 301. Explores the physical, cultural, competitive, and behavioral structure of markets and how they vary across international boundaries. Also covers some of the important regulatory issues that vary across countries and how those issues can affect business decisions in different countries. Should be taken in senior year.
- **304. ISSUES IN INTERNATIONAL ECONOMICS I 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international economics.
- **305. SPECIAL TOPICS IN INTERNATIONAL BUSINESS I 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international business.
- **306. ISSUES IN INTERNATIONAL FINANCE I 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international finance.
- **307. ISSUES IN INTERNATIONAL MANAGEMENT I 3 cr.** Prerequisite: determined by the study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international management.
- **308. ISSUES IN INTERNATIONAL MARKETING I 3 cr.** Prerequisite: determined by the study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international marketing.
- **309. ISSUES IN INTERNATIONAL BUSINESS ENVIRONMENTS I 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers fundamental issues in international business environments.
- **404. ISSUES IN INTERNATIONAL ECONOMICS II 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international economics.
- **405. SPECIAL TOPICS IN INTERNATIONAL BUSINESS II 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international business.
- **406. ISSUES IN INTERNATIONAL FINANCE II 3 cr.** Prerequisite: determined by studyabroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international finance.

- **407. ISSUES IN INTERNATIONAL MANAGEMENT II 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international management.
- **408. ISSUES IN INTERNATIONAL MARKETING II 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international marketing.
- **409. ISSUES IN INTERNATIONAL BUSINESS ENVIRONMENTS II 3 cr.** Prerequisite: determined by study-abroad university. One of the three pre-approved electives to be taken during the required study-abroad semester. The specific course will be titled by the study-abroad university, but will transfer back as this course. Covers advanced issues in international business environments.
- **490. INTERNATIONAL PROFESSIONAL EXPERIENCE 0 cr.** Prerequisite: permission of instructor. A 0-credit course verifying that an IBLC major has fulfilled the international professional work experience requirement. Prior to starting work, the student should seek preapproval from the instructor and only then may register for this course. A student will receive a passing grade for the course only after the work experience requirement has been satisfied and approved by the instructor. Pass/Fail.
- **491.** U.S.-BASED INTERNATIONAL PROFESSIONAL EXPERIENCE 0 cr. Prerequisite: permission of instructor. A 0-credit course verifying that an IBLC major has fulfilled the U.S.-based international professional work experience requirement. Prior to starting work, the student should seek pre-approval from the instructor and only then may register for this course. A student will receive a passing grade for the course only after the work experience requirement has been satisfied and approved by the instructor. Pass/Fail.
- **494. SEMINAR IN INTERNATIONAL BUSINESS 3 cr.** Prerequisite: IB 301 or as announced. Study of contemporary issues in international business not covered in-depth in other courses. Specific topic, method of presentation, and requirements are designated by the seminar leader.
- **495. BUSINESS PROBLEM SOLVING ACROSS CULTURES 3 cr.** Prerequisite: IB 301. The capstone course of the IBLC major. Students are confronted with a series of problems that they solve initially for a company in the U.S., and then for a company abroad. Emphasis is on how the solutions need to change as a function of culture. Should be taken in the spring semester of senior year.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: overall G.P.A. of 3.0 or higher, and permission of program director and faculty member. Research project supervised by a faculty member of the Boler School of Business willing to act as advisor. The student selects an aspect of international business, establishes goals, and develops a plan of study. The plan must be approved by the program director and filed with the dean's office. Consult the program director for guidelines established for such study.

International Cultures (IC)

International Cultures designates a body of courses offered by the Department of Classical and Modern Languages and Cultures. (Department faculty are listed on page 167.) These courses are aimed at providing a cross-cultural approach to understanding today's multicultural world. They involve art, film, popular culture, historical perspectives, and literature. Most courses fulfill Division II and special designations (especially R, S, and L) in the University Core Curriculum.

The courses listed below are chronologically arranged according to cultural areas (e.g., courses on East Asia are numbered 120-129, 220-229, 320-329). For courses in classical cultures and languages (CL), see page 170 under Classics.

Generic: 100-109, 201-209, 301-309, 401-409

Africa: 110-119, 210-219, 310-319 East Asian: 120-129, 220-229, 320-329

Eastern European: 130-139, 230-239, 330-339 Francophone: 140-149, 240-249, 340-349 Germanic: 150-159, 250-259, 350-359 Italian: 160-169, 260-269, 360-369

Spanish-speaking: 170-179, 270-279, 370-379

Note: All International Cultures courses are taught in English.

International Cultures I

120. JAPANESE CULTURE AND SOCIETY 3 cr. Contemporary Japan viewed from diverse perspectives: religion, businessmen and women, educational system, food, urban and rural areas, traditional and new cultural phenomena, traditional and contemporary dramas, 'serious' literature and 'manga' (comic books), high culture and mass culture.

122. JAPANESE CULTURAL ART FORMS 1 cr. 122A JAPANESE SWORDSMANSHIP: KENDO Martial art combining mind, body, spirit training, and cultivation of one's character through controlled matches governed by strict rules of etiquette and conduct, non-lethal instruments, traditional clothing, and protective equipment. 122B JAPANESE CALLIGRAPHY "The way of writing," unlike its Western counterpart, an art form widely practiced by people of all ages and all walks of life in Japan. 122C JAPANESE IKEBANA Traditional flower arranging based on ancient rules and spiritual practices that include harmony with nature and the use of organic materials. Any combination of courses (A, B, or C) may be repeated for up to 4 credits.

140. FRANCE TODAY 3 cr. Emphasis on understanding French culture and society together. Topics include historical influences on contemporary culture; French patterns of daily behavior; artistic expression; and societal, religious, and political institutions. Topics serve as the basis for in-class discussion and composition assignments.

141. ROMANCING A CITY: PARIS THROUGH ART, FILM, AND LITERATURE 3 cr. The heritage of Parisian architecture, painting, music, film, and literature as they reflect life through the centuries.

145. FASHION IN FRENCH LITERATURE AND THE ARTS 3 cr. How clothes relate to culture and social interactions, as well as national, religious, and ethnic identities.

- **146. THE FRENCH IN THE AMERICAS 3 cr.** A literature and culture course in three parts: part I North America, primarily French-speaking Canada; part II North America, with emphasis on New England and Louisiana; part III the French Caribbean, with emphasis on Haiti and Martinique, the impact of slavery, legacy of colonialism, and diversity. Two novels and epistolary literature, media, class discussion, individual and paired projects.
- **160. ITALY TODAY 3 cr.** Historical and cultural background of modern Italy. Emphasis on themes such as immigration, women in politics, and the reasons for Italy's zero birth rate.
- **162. ITALIAN AMERICAN CULTURE AND CIVILIZATION THROUGH LITERATURE 3 cr.** (ML 260) Prerequisites: EN 111-112 or equivalent. The Italian American experience from the late nineteenth century to the present. Sociopolitical issues seen through literary and other readings, as well as cinema.
- **163. WOMEN IN ITALIAN SOCIETY THROUGH LITERATURE AND FILM 3 cr.** The shift in social, political, and economic roles of women in 20th-century Italy. Focus on major Italian women writers and films that depict these changes.
- **164. ITALIAN LITERARY PARKS 3 cr.** The relationship between writing and the writer's homeland. Focus on major Italian writers and their literary, physical, and emotional portrayal of their place of origin.
- **165. MODERN ROME IN LITERATURE AND FILM 3 cr.** Representation of the city of Rome as capital city of Italy and center of Italian political and cultural life.
- **170. CONTEMPORARY SPANISH CULTURE THROUGH FILM 3 cr.** Contemporary Spanish culture since the Spanish Civil War (1936-39) as seen through a series of films and cultural texts. Explores how the cinema as a medium was used to critique and undermine the restrictive cultural politics of the Franco dictatorship.
- **171. CONTEMPORARY LATIN AMERICAN CINEMA 3 cr.** Major trends and movements in Latin American cinema from the 1980s to the present. Through the analysis of representative films, students are introduced to a variety of cinematic styles, with particular focus on the historical contexts in which the films were produced.
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** One or several aspects of a culture or cultures—either in the country of origin or as American heritage—especially as found in its language, literature, ideas, or art forms. May be repeated with a different topic.

International Cultures II

- **203. GLOBAL FAIRY TALES, FABLES, FOLK TALES, AND SHORT FICTION 3 cr.** The international roots and literary merits of tales; tales as a reflection of time, place, and social norms. Class discussions and independent research. Students will write their own interpretation of a fairy tale focusing on the elements of the genre as presented in the course.
- **209. FOOD IN FILM AND CULTURE: THE GLOBAL GENDERED TABLE 3 cr.** Viewing and discussion of feature films and documentaries that have as their major theme some aspect of food, food and culture, or the globalization of food production. How food is biological and cultural, personal and political, national and international, and may even define social class/caste, race, ethnicity, and socially or culturally imposed gender roles. Films are supplemented with academic and scholarly readings.

- **210. LITERATURE FROM FRENCH-SPEAKING AFRICA 3 cr.** Emphasizes various genres of literature by African authors and the heritage of French-speaking countries which were part of the French colonial empire until the 1960s.
- **220.** JAPANESE POPULAR CULTURE 3 cr. Focuses on the culture of ordinary Japanese, their interests, lifestyles, and activities, rather than the aesthetics of the elites.
- **221.** A HALF-CENTURY OF POSTWAR WRITING IN JAPAN 3 cr. The works of authors such as Mishima, Tanizaki, Abe, and the Nobel Prize winners Kawabata and Oe.
- **229. SURVIVAL CHINESE FOR EVERYONE 3 cr.** Introduction to Chinese culture from various perspectives. (Does not meet Division I language requirement.)
- **230. SHORT FICTION OF THE NINETEENTH CENTURY: RUSSIAN, SLOVAK, CZECH 3 cr.** (ML 205) Survey of translated short stories and/or novellas from these Slavic peoples depicting their 19th-century society, history, and culture.
- **231. SHORT FICTION SINCE 1900: RUSSIAN, SLOVAK, CZECH 3 cr.** (ML 206) Survey of translated short stories and/or novellas from the literatures of these Slavic peoples since 1900, depicting recent society, history, and culture.
- **232.** HUNGARIAN CULTURE AND SOCIETY 3 cr. Aspects of contemporary Hungarian society and cultural traditions that focus on outstanding representatives and works of Hungarian history and politics, ethnography, literature, music, film, and fine arts.
- **240. SUB-SAHARAN FRANCOPHONE NOVELS 3 cr.** Major novels by African writers that represent the life, culture, and aspirations of the colonial as well as post-colonial periods of the French-speaking countries south of the Sahara.
- **260. ITALIAN LITERATURE AND FILM 3 cr.** Study of Italian novels that have cinematic counterparts, concentrating on how the spectacle of film gives a different reading from that of the novel to show the changing conditions of 20th- and 21st-century Italy.
- **262. FRAMING SPIRITUAL MODERNITY: JUAN DE VALDÉS, MICHELANGELO AND VITTORIA COLONNA 3 cr.** The writings of Juan de Valdés and how they influenced the poetry of Vittoria Colonna and Michelangelo Buonarroti.
- **263.** MODERN ITALY AND MASS MIGRATION THROUGH LITERATURE 3 cr. (ML 275) Historical and cultural background of modern Italy, especially as found in the works of Ignazio Silone. Study of the conditions of southern Italy which led to mass migration to the U.S. in the nineteenth century.
- **264. ITALIAN IDENTITY WITHOUT BOUNDARIES: VIEWS FROM LITERATURE 3 cr.** Exploration of the interrelationship of literary theory with ethnicity and diversity through its socio-cultural context.
- **270. ART AND SOCIETY IN EARLY MODERN SPAIN 3 cr.** The relationship of art to society, politics, religion, and imperial ideology. Introduces the idea that art can meet objectives that go beyond aesthetic values.
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-4 cr.** One or several aspects of a culture or cultures—either in the country of origin or as American heritage—especially as found in its language, literature, ideas, or art forms. May be repeated with a different topic.

International Cultures III

- **302. INTERNATIONAL CULTURES THROUGH CINEMA 3 cr.** Major trends and movements that have emerged from various national cinemas and contributed to the historical development of film as an international art form. Focus on selected films and how they reflect cultural/historical contexts and global creative confluences. Course materials offer a comprehensive culture-based overview of international film history.
- **303. INTERNATIONAL FILM AND LITERATURE 3 cr.** Experiencing "culture" critically by analyzing film and literary works in a global context. Emphasis on connections between literary and cinematic works from majority and minority cultures; comparative methods to understand literary diversity; critical knowledge of cinematic and literary themes, motifs, structures, narratives, points of view, and values typical of various global regions.
- **304. MASTERPIECES OF WORLD LITERATURE 3 cr.** Survey of translated literary works by authors from one or more cultures/populations involving any time period and one or more literary genre(s).
- **340.** CHINA THROUGH THE EYES OF THE FRENCH 3 cr. French literature within the context of correspondence, travel literature, and narratives, with a particular focus on works authored by Far East-bound French travelers, missionaries, and diplomats.
- **343. FRANCO-ITALIAN CROSS-CULTURAL RELATIONS 3 cr.** Italian influences on the political, religious, artistic, and social structure of French culture.
- **360. DANTE'S DIVINE COMEDY 3 cr.** Study in modern English translation of Hell, Purgatory, and Paradise focusing on theological issues and literary content. Dante is examined as both a supreme poetic craftsman and a Church reformer.
- **361. ITALIAN HUMANISM AND RENAISSANCE 3 cr.** Study of Italian Humanism and the Renaissance through the writings of Petrarch, Alberti, Machiavelli, Michelangelo, Colonna, and Leonardo. Includes an intensive, on-site learning tour. Travel fee required.
- **363. FRAMING GRACE: ARTISTS AND POETS IN THE ITALIAN RENAISSANCE 3 cr.** Study of literary theory as seen in the poetry of Vittoria Colonna and Angelo Poliziano and in the artistic representation of Michelangelo Buonarroti and Alessandro Botticelli.
- **370. HISPANIC WOMEN WRITERS 3 cr.** Reading and analysis of works of contemporary U.S. Latina and Latin American women, such as Julia Alvarez, Cristina Garcia, Esmeralda Santiago, Isabel Allende, Zoe Valdes, Luisa Valenzuela, and Laura Esquivel. A literary, cultural, and comparative approach that emphasizes critical thinking and writing.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** One or several aspects of a culture or cultures—either in the country of origin or as American heritage—especially as found in its language, literature, ideas, or art forms. May be repeated with a different topic.

International Cultures IV

- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study for advanced students. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** For advanced students. Occasional course on a selected topic announced in advance. May be repeated with a different topic.

Italian (IT)

Associate Professor: S. Casciani; Assistant Professor: L. Ferri

Knowledge of Italian is fundamental for those who are considering a career in the humanities or social sciences, especially art history, literature, history, music, linguistics, education, and international relations. It is also fundamental for those who are majoring in International Business with Language and Culture with a focus on Italy, which includes a semester abroad in Milan followed by an internship in business. Such an experience is crucial to various careers in today's global economy. Consider, too, that Italian is the language of world-class artists from Dante to Fellini. Italian product design is synonymous with artistry, elegance, and functionality, and continues to dominate the fashion, furniture, and luxury car industries.

- **101. BEGINNING ITALIAN I 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. (Fall)
- **102. BEGINNING ITALIAN II 3 cr.** Prerequisite: IT 101 or equivalent. Amplification of language skills in a cultural context. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Italian at the beginning level.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE ITALIAN I, II 3 cr. each.** Prerequisite: IT 102 or equivalent. Further development of the four language skills; expanding of vocabulary, idiomatic usage, and grammar. IT 201 or equivalent Prerequisite for IT 202. (Fall-201, Spring-202)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Italian at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301-302. ADVANCED ITALIAN I, II 3 cr. each.** Prerequisite: IT 202 or equivalent. Advanced study of the four language skills; expanding of vocabulary, idiomatic usage, and grammar. IT 301 or equivalent Prerequisite for IT 302. (Fall-301, Spring-302)
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **401. ADVANCED ITALIAN CONVERSATION 3 cr.** Subtleties of Italian phonology, morphology, and syntax, along with the development of advanced vocabulary and conversational techniques. Activities include in-depth discussion and debate of current events and real-life problems as well as oral analysis of readings.

496-497. SENIOR THESIS IN ITALIAN STUDIES 3 cr. each. Prerequisites: permission of instructor and chair. Individual research project developed and written in consultation with appropriate faculty member. Fall semester of student's senior year: approval of topic, research, preliminary drafts. Spring semester of senior year: completion of thesis (496-Fall, 497-Spring)

498. ADVANCED INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised independent study for advanced students on special topics in Italian language, literature, or culture. Taught in Italian. May be repeated with a different topic.

499. SPECIAL TOPICS 1-3 cr. Occasional course on a selected topic announced in advance. Focus on a specific theme, genre, or time period in Italian language, literature, or culture. Taught in Italian. May be repeated with a different topic.



Japanese (JP)

Assistant Professor: K. Nakano

In the Japanese program students learn the language of Japan, a country known for its rich history, economic power, and ever-changing popular culture. Courses are offered at beginner, intermediate, and advanced levels. Independent study courses are available to students who have completed advanced-level courses.

Graduates with proficiency in Japanese are well positioned for jobs in fields such as government, international relations, finance, tourism, translation, and teaching. Moreover, learning Japanese is simpler than it might at first appear. Beginning students quickly master the phonetic alphabet and Japanese characters.

- **101. BEGINNING JAPANESE 1 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. (Fall)
- **102. BEGINNING JAPANESE II 3 cr.** Prerequisite: JP 101 or equivalent. Amplification of language skills in a cultural context. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Japanese at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE JAPANESE I, II 3 cr.** Prerequisite: JP 102 or equivalent. Further development of the four language skills for communication in a cultural context; expanding of vocabulary, idiomatic usage, and grammar. JP 201 or equivalent Prerequisite for JP 202. (Fall-201, Spring-202)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Japanese at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301-302. ADVANCED JAPANESE I, II 3 cr.** Prerequisite: JP 202 or equivalent. Advanced study of the four language skills; expanding of vocabulary, idiomatic usage, and grammar. JP 301 or equivalent Prerequisite for JP 302. (Fall-301, Spring-302)
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Prerequisites: JP 302 or 398 or equivalent, and permission of instructor. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** Prerequisites: JP 302 or 398 or equivalent, JP 498 or equivalent. Contemporary Japanese used in various areas of specialization. May be repeated with a different topic.

Latin (LT)

Professor: T. R. Nevin; Associate Professor: G. Compton-Engle; Visiting Assistant Professor: K. A. Ehrhardt

The program in Latin is offered by the Department of Classical and Modern Languages and Cultures.

Major and Minor Requirements

For complete information on the major and minor in Classical Languages and Classical Studies, see page 167. For courses in Greek, see page 233.

- **101. BEGINNING LATIN I 3 cr.** Introduction to the language of the Romans through study of the fundamentals of Latin grammar, syntax, and vocabulary. Special attention paid to Latin roots of English vocabulary. (Fall)
- **102. BEGINNING LATIN II 3 cr.** Prerequisite: LT 101 or equivalent. Continued study of Roman culture through further acquisition of Latin grammar and syntax. Increased emphasis on the reading of literary passages. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Supervised independent study of Latin at a beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on selected topics announced in advance. May be repeated with a different topic.
- **201. READINGS IN MYTH AND HISTORY I 3 cr.** Prerequisite: a year of college Latin or its equivalent. Review of grammar and syntax through readings taken from classical mythology and Roman history. (Fall)
- **202. READINGS IN MYTH AND HISTORY II 3 cr.** Continuation of LT 201; more readings from Roman mythology and history; also, St. Perpetua's autobiography. (Spring)
- **231. LATIN PROSE AUTHORS 3 cr.** Reading from a selected author, such as Cicero or Caesar. Development of reading skills; analysis of the author's thought and cultural context.
- **232. INTRODUCTION TO LATIN POETRY 3 cr.** Reading from a selected author, such as Catullus or Vergil. Introduction to Latin meter and poetic conventions, as well as acquisition of poetic vocabulary.
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Supervised independent study of Latin at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- 301. LATIN WRITING 3 cr. Practice in writing idiomatic Latin prose.
- **320. ROMAN EPISTOLARY WRITING 3 cr.** Reading from the letters of a writer such as Cicero, Horace, Pliny, Ovid, or Seneca. May be repeated with a different author.

- **330. ROMAN HISTORICAL WRITING 3 cr.** Roman history through the eyes of a Roman historian, such as Livy, Tacitus, Sallust, or Caesar. May be repeated with a different author.
- **340. ADVANCED ROMAN POETRY 3 cr.** Reading from the works of a poet, such as Catullus, Vergil, Horace, Tibullus, Propertius, or Ovid. Origins of lyric, pastoral, elegiac poetry. May be repeated with a different author.
- **398. INDEPENDENT STUDY 1-3 cr.** Supervised independent study of Latin. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance, such as the writings of St. Augustine. May be repeated with a different topic.
- **410. ROMAN SATIRE 3 cr.** Reading from a Roman satirist, such as Horace, Juvenal, or Persius. Study of the characteristics of Roman satire, the satirist's view of his culture, and the influence of Roman satire on later literature. May be repeated with a different author.
- **450. ROMAN DRAMA 3 cr.** Reading from the works of such dramatists as Plautus, Terence, and Seneca. Development of Roman drama, its connection with Roman society, and its influence on later drama. May be repeated with a different author.
- **490, 491. HISTORY OF ROMAN LITERATURE 3 cr. each.** Lectures, discussions, and translations of authors not read previously. 490: Roman literature from the beginning to the Golden Age. 491: Nature and characteristics of Silver Age literature.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Supervised study on special topics. For advanced students. May be repeated with a different subject matter.
- **499. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.



Leadership Development (LP)

The leadership development minor exposes students to leadership theory and practice, guides them in their leadership development, and offers them opportunities to gain leadership experiences. The minor is a cutting-edge representation of what it means to build leadership capacity in others; it helps John Carroll students live our mission of inspiring "individuals to excel in learning, leadership, and service in the region and in the world."

Like leadership itself, the minor is interdisciplinary in nature; it has the flexibility to align with the needs and interests of individual students. Perhaps the most unique aspect of the Leadership Development minor, one that sets it apart from other schools, is that students have the opportunity to participate in a number of one-credit "learning labs" designed to reinforce leadership concepts and theories experientially and to put what is being learned into action. These labs focus on topics such as identifying personal attributes and creating a vision, motivating others, building a team, and implementing a strategy. **Coordinator:** Kevin Wallace.

Minor Requirements

Leadership Development Minor: Total of 21 hours.

Leadership Theory Courses (5 hours) Required: LP 101, 102, 203

Leadership Laboratories (4 hours) Required: LP 301, 302, 303, 304

Leadership Component Courses (6 credits): One from A: PL 302, 310, 311, 315, 368; TRS 260, 268 (RL 262), 461 (RL 466); one from B: AR 203; CO 200, 300, 314, 400, 446; BI 383; MN 395; MS 301; PS 301, 359

Leadership Context Courses: One from the following: AH 430, 435; CO 235, 346; EC 343; EN 214, 277, 285; HS 114, 131, 195B, 197B; IC 230, 302; MN 352; MS 357; PO 302, 316, 355, 410; PS 421; TRS 321 (RL 326), 323 (RL 324), TRS 330 (RL 331); SC 380, 393

Leadership Legacy Project (3 credits) Required: LP 401, 402, 403

- **101. INTRODUCTION TO LEADERSHIP I 1 cr.** Introduction to the concept of leadership and the traits, values, characteristics, and behaviors that create effective leadership. MS 101 may be substituted for LP 101.
- **102. INTRODUCTION TO LEADERSHIP II 1 cr.** How different traits, values, characteristics, and behaviors are effective in different contexts such as public office, business, community organizations, and religious institutions. MS 102 may be substituted for LP 102.
- **198. TOPICS IN LEADERSHIP 1-3 cr.** Prerequisite: permission of instructor. Various subjects related to the methods or content of leadership not typically covered in regular course offerings.

- **199. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised study on special topics. Must be approved prior to registration.
- **203. INTRODUCTION TO LEADERSHIP III 1 cr.** Prerequisites: LP 101 and 102, or PS 395. Introduction to alternative theories of leadership and related concepts. Different styles of leadership will be explored in relation to leadership theories. Students will examine the application of different theories of leadership and leadership styles to different problem-oriented situations. MS 201 and MS 202 may be substituted for LP 203.
- **301. PERSONAL ATTRIBUTES: THE WHO OF YOU 1 cr.** Prerequisite: LP 203 or MS 202. Finding and giving "voice" to one's personal style and inner substance in a significant and compelling way that will resonate with others and facilitate work towards stated goals.
- **302. FINDING PURPOSE: VISION AND VOICE 1 cr.** Prerequisite: LP 203 or MS 202. The dynamic of vision and the way in which it can be used to focus, inspire, and motivate. In addition, students will develop the ability to "package" their sense of self in a clear, concise, and compelling way and to be confident in doing so.
- **303. POSITION: CHANGE AGENTS—THE GOOD, THE BAD, AND THE UGLY 1 cr.** Prerequisite: LP 203 or MS 202. Concepts associated with group dynamics and how different forms of power play out in groups. Also, the strategic and practical nature of alliances: their purposes and benefits, how alliances are formed, how they are maintained, and how they thrive.
- **304. THE PROCESS: STRATEGIES FOR HOW 1 cr.** Prerequisite: LP 203 or MS 202. How to clearly define a problem or issue, separate strategy from tactics, and propose a reasonable strategic intent.
- **401. LEADERSHIP PROJECT PLANNING 1 cr.** Prerequisites: LP 203 or MS 202 plus components and context courses—see above; permission of instructor. Part of a three-credit capstone experience requiring students to plan, implement, and evaluate a substantive service project that will have a lasting impact on John Carroll or the larger community. In LP 401 students plan their project under instructor supervision. LP 401 is strongly recommended for the fall semester of the senior year.
- **402. LEADERSHIP PROJECT IMPLEMENTATION 1 cr.** Prerequisites: LP 203 or MS 202 plus components and context courses—see above; prerequisites or corequisites: LP 401 and permission of coordinator or instructor. Part of a three-credit capstone experience requiring students to plan, implement, and evaluate a substantive service project that will have a lasting impact on John Carroll or the larger community. In LP 402 students will implement their project under instructor supervision. LP 402 is strongly recommended for the fall or spring semester of the senior year.
- **403. LEADERSHIP REFLECTION AND PORTFOLIO PRESENTATION 1 cr.** Prerequisites: LP 202 or MS 202 plus components and context courses—see above; prerequisites or corequisites: LP 402 and permission of coordinator or instructor. Part of a three-credit capstone experience requiring students to plan, implement, and evaluate a substantive service project that will have a lasting impact on John Carroll or the larger community. LP 403 provides students with the opportunity to learn about their leadership capabilities through reflection on their capstone experience.

Management (MN)

Professors: J. E. Smith (Vice President), W. N. Bockanic, C. A. Watts; Associate Professors: M. P. Lynn (Chair); Assistant Professors: S. J. Allen, R. F. Miguel

The Department of Management, Marketing, and Logistics is dedicated to educating and serving its students, the University, and the community through quality teaching, significant research, interaction with Northeast Ohio executives, and meaningful involvement with the local business community. The objective of the management faculty is to develop the management and leadership skills necessary for achieving excellence in one's chosen profession.

Management has been defined as the "process of achieving desired results through efficient utilization of human and material resources." In the management major, students investigate theories, develop interpersonal skills, and apply financial and technological techniques applicable to all organized activity—whether in business, government, education, or healthcare. Emphasis is placed on strategic and entrepreneurial thinking, project management, human resources, and leadership, providing the leadership capacity to make and implement decisions in the 21st centrury.

Recent John Carroll management alumni have had myriad career paths available to them. For example, graduates work as management consultants, entrepreneurs, management/executive trainees, healthcare administrators, production/operations planners and supervisors, bank managers, and salespeople. With many available career options, the management major offers students the opportunity to tailor course work to specific careers. This flexibility distinguishes a management major from other majors.

As a major, management is especially appropriate for those who plan to become leaders or managers in any type of organization. It is also an excellent foundation for those who desire to pursue graduate study in business administration, organizational behavior, production/operations management, management information systems, industrial relations, international business, or law. In fact, our management majors have gone on to some of the top-ranked graduate schools in the U.S.

A variety of elective courses are available to students with a management major as they select either the Leadership or Entrepreneurial Studies track.

Requirements

Major in Management: A total of 63-66 credit hours as described below.

Business Core: 43 credit hours, including MN 461.

Major Courses: 24 credit hours. HR 352, MN 395, BI 383, and five elective courses as specified in one of the following tracks.

Entrepreneurial Studies track. Required courses include MN 364, BI 371, and any three of the following: MN 361, MN 365, MN 366, MN 463, MN 480, or BI 341.

Leadership track. Required courses include MN 495 and any four of the following: MN 361, MN 364, HR 370, HR 373, HR 376, MN 463, BI 371, LG 440, BI 341, or MK 402.

Professional Experience: Majors must have relevant professional work or volunteer experience prior to graduation. This requirement must be satisfied by completing MN 401.

- **202. BUSINESS COMMUNICATIONS 3 cr.** Prerequisites: one year of English composition with a 2.0 average or better; completion of BI 109 or a competency waiver. Contemporary communication practices (including business reports and electronic forms of communications); business communication issues; communication technologies; business research, writing, and presentation. Not open to business minors.
- **325. ORGANIZATIONAL BEHAVIOR AND MANAGEMENT 3 cr.** Prerequisites: PS 101 and EC 208 or MT 122 or MT 228. Introduction to organizational behavior and to the role of the manager. Basic concepts in the behavioral sciences, behavioral principles of management, and the application of this information to organizational life. Topics may include contributions of the classic theorists, management functions, motivation, leadership, attitudes, group dynamics, global management behavior, and organizational change.
- **361. GLOBAL MANAGEMENT 3 cr.** Prerequisites: AC 202, EC 201-202, and MN 325 or permission of chair. Aspects of global management, with particular emphasis on the role of the multinational company (MNC), whether headquartered in the U.S. or another country. At the macrolevel, attention to the cultural, sociopolitical, and economic forces that influence international business operations. Overview of management functions, policies, and concerns of the individual MNC.
- **364. ENTREPRENEURSHIP 3 cr.** Prerequisites: AC 202, EC 201-202, and MN 325 or permission of chair. Study of entrepreneurship and the entrepreneurial process. Seeks to broaden basic understanding obtained in the functional areas as they apply to new venture creation and growth. Students will develop an understanding of the role of entrepreneurship and new venture creation in economic development, as well as the role and activities of an entrepreneur. Provides an opportunity to evaluate the student's own entrepreneurial tendencies and future venture creations.

- **365. FAMILY BUSINESS MANAGEMENT 3 cr.** Prerequisites: AC 201, EC 201-202, MN 325; prerequisite or corequisite: AC 202 or permission of chair. Explores the challenges and opportunities facing individuals and families involved in business relationships. Topics include family business culture, entrepreneurial influences, key issues and conflicts, career planning, succession and strategic planning, counseling and consulting, professional support relationships, and survival skills as a son or daughter in the family business.
- **366. NEW VENTURE MANAGEMENT 3 cr.** Prerequisites: AC 201, EC 201-202, MN 325; prerequisite or corequisite: AC 202 or permission of chair. Focuses on the functional skills and knowledge necessary in the early phases of developing a privately held business. Helps students develop an understanding and awareness of the way the critical areas of law, management, finance, accounting, and marketing need to be integrated and applied for successful small and medium enterprise management. Emphasizes differences between public and privately held businesses. The student will develop a full business plan in this course.
- **395. LEADERSHIP SKILLS DEVELOPMENT 3 cr.** Prerequisite or corequisite: MN 325. Skills developed in this experiential course reflect the planning, leadership, and control roles of leaders and managers. Among the skills developed are goal setting, delegation, personal productivity and motivation, planning, analysis, information overload reduction, critical thinking, subordinate development, team building, conflict management, managing change, and negotiation.
- **401. PROFESSIONAL EXPERIENCE 0 cr.** Prerequisite: permission of instructor. Verifies that an MN major has completed the professional work experience requirement. Prior to starting work (whether in an internship, part-time job, or volunteer opportunity), the student should seek pre-approval from the instructor and only then may register for this course. A student will receive a passing grade for the course only after the work experience requirement has been satisfied and approved by the department chair or instructor.
- **405. SEMINAR IN MANAGEMENT 3 cr.** Prerequisites: MN 325 and/or as announced. Study of contemporary issues in management, leadership, or entrepreneurship not covered in depth in other departmental courses. Specific topic, method of presentation, and student requirement will be designated by the seminar leader.
- **461. LEGAL ENVIRONMENT OF BUSINESS 3 cr.** Prerequisite: senior standing. Study of the American legal environment within its social, political, economic, and ethical contexts. Topics include legal ethics, antitrust law, administrative law, labor law, product liability, the civil and criminal process, torts, business and the Constitution, sources of law (political and institutional), consumer law, and law in international business.
- **463. BUSINESS LAW I 3 cr.** Prerequisite: senior standing. Focuses on the nature, purpose, and functions of law; special emphasis on its relation to business. Topics include the legal system, fundamentals of the law of contracts, agency, partnerships, corporations, wills, and investment securities.
- **464. BUSINESS LAW II 3 cr.** Prerequisite: MN 463. Study of law within its social, political, economic, and ethical contexts. Topics include sales, commercial paper, secured transactions, bankruptcy, property, documents of title, employment law, product liability, antitrust law, and ethics.

- **480. SMALL AND MEDIUM BUSINESS ANALYSIS 3 cr.** Prerequisites: FN 312, MK 301, BI 326; and MN 364 or MN 365 or MN 366. Involves a total field analysis of a business visited by students acting as members of a consulting team. Promotes the integration of prior course work into a cohesive body of knowledge, an understanding of theoretical and applied concepts, and an appreciation of teamwork.
- **495. LEADERSHIP PHILOSOPHY 3 cr.** Prerequisites: HR 352 and senior standing. Exploration of modern and classical management and leadership philosophies. Emphasis on student development of a personal management philosophy based on an in-depth analysis of classical and contemporary writings on management. Application of leadership philosophy to organizational change issues. May require a major service project in which the student integrates learning from other management courses and demonstrates leadership.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: MN 325, overall GPA of 3.0 or higher, and permission of chair and faculty member. Designed for the student who wants to undertake a research project supervised by a faculty member. Student selects an aspect of management, establishes goals, develops a plan of study, and seeks out a full-time faculty member of the department willing to act as advisor. Plan of study must be approved by the chair and dean. Consult the chair for the departmental guidelines established for such study.
- **499. STRATEGIC MANAGEMENT 3 cr.** Prerequisites: FN 312, MK 301, MN 325, and BI 326, and senior standing. Presentation of strategic management theory and practice. Strategic and operating problems are assessed and competitive solutions recommended. The course requires general management perspective, global business views, knowledge of functional business disciplines, computer-based analysis, and management presentations.



Marketing (MK)

Professors: J. H. Martin (Associate Dean), P. R. Murphy, Jr.; Associate Professors: M. P. Lynn (Chair), R. T. Grenci; Assistant Professors: T. M. Facca, J. M. Drenten; Instructor: J. J. Cabusas

Why do consumers buy what they buy? How can organizations succeed in the marketplace? These are the questions and challenges that confront marketers. Marketing is the part of an organization that looks outward to find opportunities that create value for others. Value is created through the collaborative planning, implementing, and managing of goods and services. The Boler marketing major emphasizes the processes involved in creating value for customers in a way that returns value to the organization.

Because every organization requires marketing, graduates can match their passions in life with a successful career. The marketing faculty is committed to the development of each student as a knowledgeable, ethical, and confident graduate, prepared for leadership through excellence in his or her educational experience.

Career opportunities in marketing lie in social media marketing, advertising, public relations, marketing communications, marketing research, marketing analysis, product and brand management, retail merchandising, new product development, and professional selling. Essential for success in marketing are persuasive skills of communication, creative and analytical skills for developing a market plan, confidence with a variety of technology applications, and cultivating the ability to adapt to a changing environment while working to co-create value in the market.

Requirements

Major in Marketing: A total of 63-66 credit hours as described below.

Business Core: 43 credit hours, including MN 461.

Major Courses: 24 credit hours. MK 302, MK 309, MK 402, MK 495; and four courses chosen from the following: LG 328, LG 440; MK 341, MK 361, MK 370, MK 405, MK 410, MK 433, MK 441, MK 470, MK 491, and MK 498. MK 402 and MK 495 are to be taken in the senior year.

Professional Experience: A relevant professional work or volunteer experience is required prior to graduation. This requirement must be satisfied by completing MK 401.

301. MARKETING PRINCIPLES 3 cr. Prerequisites: EC 201-202; prerequisite or corequisite: AC 202 or junior standing. Introduces students to the field of marketing. Provides an overview of marketing concepts and strategies critical to value-driven marketing. Emphasis is on how to develop, promote, distribute, and price an organization's offerings in a dynamic economic, social, political, and international environment. Ethical issues related to marketing are also examined

- **302. APPLIED CONSUMER INSIGHTS 3 cr.** Prerequisite: MK 301; prerequisite or corequisite: MN 325. Provides coverage of consumer behavior theories, frameworks, concepts, and tools to get into the hearts and minds of consumers and uncover insights that are relevant for business and policy. Methods of consumer observation and deep analysis are introduced. Students learn to generate original consumer insights to create real-world marketing recommendations. Topics are drawn from areas of psychology, social psychology, sociology, cultural anthropology, and behavioral economics. Offered spring semester only; should be taken in junior year.
- **309. SOCIAL ENGAGEMENT TECHNOLOGIES 3 cr.** Prerequisite: MK 301. Explores the ever-evolving social media environment and the opportunities and challenges it poses for marketers and managers. Emphasis is on examining and using social media platforms and tools in developing and implementing strategic marketing initiatives for engaging and collaborating with users, content creation, product development, and professional networking.
- **341. ADVERTISING AND INTEGRATED BRAND PROMOTION 3 cr.** Prerequisite: MK 301. Presents an integrated brand promotion (IBP) approach to advertising. IBP involves coordinating all promotional activities, including direct marketing, advertising, sales promotion, personal selling, public relations, publicity, and branded entertainment to create widespread brand exposure. Message development, placement, and timing are examined within the context of the role each type of promotion plays in marketing strategy development. Offered fall semester only.
- **361. MULTINATIONAL MARKETING 3 cr.** Prerequisite: MK 301. Provides a fundamental understanding of international marketing. Analyzes the scope, opportunities, and challenges associated with marketing across international borders, with a particular emphasis on non-western countries.
- **370. VISUAL COMMUNICATION IN MARKETING 3 cr.** Prerequisite: MK 301. A project-oriented course that focuses on applied knowledge in the production of meaning using visual communications to solve marketing problems across traditional and nontraditional media platforms. Students learn to develop, refine, and execute visual communication strategies, including creative concept generation, integrated multimedia, typography, informational graphics, copywriting, layout design, and brand semiotics. Students are expected to implement computer graphics skills (e.g., Adobe Creative Suite).
- **401. PROFESSIONAL EXPERIENCE IN MARKETING 0 cr.** Prerequisite: permission of instructor. Verifies that a marketing major has completed the professional experience requirement. Prior to starting the work experience, students must seek pre-approval from the instructor before they may register for this course. Students will receive a passing grade for the course only after the pre-approved work experience requirement has been met and approved by the instructor.
- **402. MARKET ANALYSIS 3 cr.** Prerequisites: MK 301; AC 202; EC 208 or MT 223 or equivalent level of statistics; senior standing. Examination of the quantitative tools marketers use to develop, monitor, and evaluate marketing strategies. Topics include the use of online survey tools, statistical analysis using SPSS, market share metrics, financial analysis, and analysis of promotion effectiveness.
- **405. SEMINAR IN MARKETING 3 cr.** Prerequisite: MK 301 or as announced. Study of contemporary issues in marketing not covered in depth in other departmental courses. Specific topic, method of presentation, and requirements designated by the seminar leader.

- **410. ISSUES IN INNOVATION PLANNING 3 cr.** Prerequisites: MK 301; AC 202; BI 107 or competency waiver for Spreadsheet Applications. Seminar-style exploration of advanced issues in developing marketing plans. A variety of tools are used to create and plan market innovations. Topics include methods of idea generation, strategy development, brand development, planning and implementation of an innovation, and the development of quantitative models for forecasting future performance.
- **433. SALES MANAGEMENT 3 cr.** Prerequisite: MK 301. Explores the central role of professional selling in the organization's marketing mix with emphasis on customer problem solving and persuasive communication. Management of the sales force, including selection, compensation, and performance evaluation, is emphasized using managerial and quantitative tools such as sales analysis, sales and market potentials, sales forecasting, quotas, territory determination, and evaluation.
- **441. ADVERTISING SEMINAR 3 cr.** Prerequisite: MK 341 or MK 370 or MK 402 or CO 315 or permission of chair. Intensive immersion in advertising campaign development for a real world client as coordinated by the American Advertising Federation's National Student Advertising Competition (NSAC). Using knowledge and skills acquired in previous course work, students will conceive, develop, and deliver an integrated advertising and promotions plan for the real-world corporate sponsor. Students form an advertising agency and prepare all campaign materials (e.g., strategy, deliverables, client pitch). Concludes with a formal presentation at NSAC District 5 competition against participating teams from Ohio, West Virginia, and Kentucky.
- **470. INTERNET MARKETING 3 cr.** Prerequisite: MK 301. Focuses on understanding how the Internet and other digital technologies can be used for developing and implementing effective marketing strategy. Topics include online business models and strategies, website design and management, online and mobile advertising, search engine optimization (SEO), social media (Web 2.0), and information privacy. Also examines the legal, ethical, and public policy issues that marketing managers face in a digital environment.
- **491. MARKETING RESEARCH 3 cr.** Prerequisites: MK 301; EC 208 or MT 223 or equivalent second semester of statistics. Explores the design and practice of qualitative and quantitative methods of survey, experimental, and field research. Emphasizes the choice of research method, the collection, interpretation, and presentation of data from original and secondary sources as related to providing information for marketing problem solving.
- **495. STRATEGIC VALUE CO-CREATION 3 cr.** Prerequisites: MK 301, and MK 302 or MK 309 or MK 402, and senior standing. Capstone marketing course featuring experiential learning projects in which students work with outside organizations to co-create value with consumers. Using a service-dominant logic as its orientation, students learn value co-creation strategies with stakeholders as a means for managing and growing an organization. A normative framework for justice in marketing provides a holistic perspective for developing leadership skills as marketers.
- **498. INDEPENDENT STUDY 1-3 cr.** Prerequisites: marketing major, overall GPA of 3.0 or higher, and permission of chair and faculty member. Research project supervised by a member of the department willing to act as advisor. The student selects an aspect of marketing, establishes goals, and develops a plan of study. The plan must be approved by the chair and filed with the dean's office. Consult the chair for departmental guidelines established for such study.

Mathematics (MT)

Professors: R. J. Kolesar, C. R. Spitznagel, P. L. Shick (Chair), M. Kirschenbaum, B. K. D'Ambrosia, T. H. Short; Associate Professors: D. L. Stenson, D. A. Norris, P. B. Chen, B. Foreman; Assistant Professor: P. E. Rinker; Visiting Assistant Professor: V. E. Lee

Major Programs

The Department of Mathematics and Computer Science offers two major programs in mathematics. The department also offers computer science programs described in the separate section on Computer Science (CS).

The **major in Mathematics** leading to the Bachelor of Science prepares students for graduate study or for immediate employment after completion of the degree. It is designed to give students a broad background in classical mathematics, while remaining flexible enough to allow students to tailor the program to meet the needs of their career objectives. Graduates have entered graduate programs in mathematics, statistics, and operations research at many leading universities, while others have entered into a variety of employment situations—as computer programmers, systems analysts, actuarial trainees, statisticians, and teachers. Other graduates have entered professional schools in law, medicine, and business.

The **major in Teaching Mathematics** leading to the Bachelor of Arts combines mathematics and education courses for licensure to teach Adolescent to Young Adult (AYA) mathematics.

Teaching Licensure

The mathematics courses necessary for licensure to teach Adolescent to Young Adult (AYA) mathematics are the same as those required for the Bachelor of Arts major in teaching mathematics.

For Middle Childhood (MC) licensure, the mathematics curriculum content courses are MT 118 or CS 144, MT 135, 160 or 200, 162, 221, 241, and 251.

For Early Childhood (EC) licensure, the mathematics curriculum content courses are MT 160 and 171

In all cases, the content-area courses for licensure (mathematics and/or computer science) must be completed with a minimum average of 2.7 and a minimum grade of C in each course.

Major and Minor Requirements

Major in Mathematics: 49 semester hours. CS 128-128L or CS 150; EP 217; MT 135, 136, 200, 229, 233, 271, 331, 342, 343; one course from Category A, one course from Category B, and two courses from Category C.

Category A: MT 450, 452.

Category B: MT 421, 436, 452.

Category C: MT courses numbered 400-480.

- Students may not use the same course to satisfy a requirement in multiple categories.
- Students earning the minor in Statistics may not use MT 421 or MT 422 to satisfy the requirements for Categories B or C.
- A third course from Category C may be substituted for MT 200.
- Students who are considering further study in mathematics should take MT 452.

A comprehensive examination is required.

Major in Teaching Mathematics: 37 semester hours. CS 128-128L or CS 150; MT 135, 136, 200, 229, 233, 271, 331, 343, 450, and 469.

Required Support Sequence: 34 semester hours. ED 100, 186, 201, 253, 255, 337, 350, 405C, 427, 444C; PS/ED 262.

A comprehensive examination is required.

Minor in Mathematics: 24 hours. MT 135, 136, 233, 271, three additional MT courses; one may be MT 200 or MT 229, the other two (or all three) must be numbered 300-379 and/or 400-479. At most, one of MT 322, MT 421, and MT 422 may be used to satisfy this requirement, and none of these may be used simultaneously for both the minor in Mathematics and the minor in Statistics.

Minor in Statistics: 19-20 semester hours. MT 135; one of MT 223/228/229, 322, 422; two elective courses; MT 342 and MT 421, or BL 224 and BL 444, or EC 409 and EC 410, or PS 301/301L and PS 401. Students who minor in statistics cannot use MT 421 or MT 422 also to satisfy the requirements of the mathematics major or minor.

Interdisciplinary Concentration

The department offers a concentration in mathematics to those economics majors completing MT 233, 421 or 422, and two mathematics electives, one of which may be MT 242 and the other (or both) numbered above 270. Similarly, B.S. mathematics majors may earn a concentration in economics by successfully completing EC 301, 302, 410, and one other upper-division economics elective. Students seeking this interdisciplinary concentration should consult with the chair of the Department of Mathematics and Computer Science.

Other Programs

The department has a five-year program with Case Western Reserve University whereby a student can earn a B.S. in mathematics at John Carroll in four years and in one additional year earn an M.S. in operations research from Case. Students interested in this program should consult with the chair of the Department of Mathematics and Computer Science at the end of their second year.

The department also offers programs leading to the M.A. and M.S. in mathematics. Under the 5th- year program students may earn both the B.S. and M.S. in five years with sufficient AP credit. Program requirements and course descriptions are published in the *Graduate Studies Bulletin*.

- **118. APPLIED MATHEMATICS 3 cr.** Introduction to the use of mathematics to model various aspects of everyday life. Topics include application of graphs and networks to urban services and business efficiency, planning and job scheduling, interpreting data for decision making, digital information representation, growth, voting systems, and fair division.
- **122. ELEMENTARY STATISTICS 3 cr.** Describing data by graphs and measures, sampling distributions, confidence intervals and tests of hypotheses for one and two means and proportions, Chi-square tests, correlation and regression. Use of appropriate statistical software.
- **130. APPLIED CALCULUS 3 cr.** Prerequisite: placement by the Math Department. Limits, derivatives, definite and indefinite integrals of polynomial, exponential, and logarithmic functions. Focus on concepts and applications, particularly those pertaining to business fields. Use of a computer algebra system to facilitate computation.
- **133-134. CALCULUS AND ANALYTIC GEOMETRY IA-IB3 cr. each.** Prerequisite: placement by the Math Department. Sequence covers the same calculus topics as MT 135 with algebra review integrated into the course as needed. The MT 133-134 sequence will count as one course in Division IV of the Core, but neither MT 133 nor MT 134 will count as a Core course individually. Note: MT 133-134 will satisfy the MT 135 or equivalent Prerequisites and requirements listed throughout the *Bulletin.* Academic credit will not be given for both MT 134 and MT 135.
- **135. CALCULUS AND ANALYTIC GEOMETRY I 4 cr.** Prerequisite: placement by the Math Department. Functions, limits, continuity, differentiation, differentiation rules, optimization, antiderivatives, definite integrals. Fundamental Theorem of Calculus, improper integrals, applications of integrals, including probability. (See "Note" in MT 133-134 above.)
- **136. CALCULUS AND ANALYTIC GEOMETRY II 4 cr.** Prerequisite: MT 135 or equivalent. Second course in a three-semester calculus sequence. Parametric curves, differentials, related

- rates, techniques of integration, additional applications of integrals, introduction to differential equations, polar coordinates, sequences, and series of numbers.
- **160. MATHEMATICS AND CREATIVITY 3 cr.** Mathematics as a creative discipline. Examples of what pure mathematics is and what mathematicians do. The nature of mathematical reasoning and proof and their essential role in human thought.
- **162. MATHEMATICS FROM NON-WESTERN CULTURES 3 cr.** Introduction to mathematics developed in non-Western and Native American societies, and illustrations of modern mathematical ideas within non-Western cultures. Topics include arithmetic in positional number systems, arithmetic and geometric sequences, methods of solving linear equations, geometry and symmetry, and games.
- **167.** THE MATHEMATICS OF CHANGE AND CHANCE 3 cr. Topics from discrete and continuous probability; introduction to statistics; calculus topics from a conceptual viewpoint. Mathematical software (spreadsheets and computer algebra systems) will be used throughout the course.
- **171. FOUNDATIONS OF EARLY CHILDHOOD MATHEMATICS 3-4 cr.** Prerequisite: MT 160 or MT 200. Focus on understanding, from an advanced standpoint, the mathematics taught in elementary school. Curriculum issues, methods, instructional resources, and assessment strategies for grades pre-K through 3 will be addressed.
- 199. SPECIAL TOPICS IN MATH 1-3 cr. Subject announced in schedule of classes.
- **200. EXPLORATIONS IN MATHEMATICS 3 cr.** Introduction to the nature of mathematics emphasizing the exploration that leads to deep ideas as well as connections between different areas. Models and development of deeper mathematical thinking using concepts that have advanced the discipline.
- **221. COMBINATORICS, PROBABILITY, AND STATISTICS IN MIDDLE SCHOOL MATHEMATICS 3 cr.** Recursive relationships, counting techniques with applications to theoretical probability, principles of data collection and analysis, graphical and numerical representations of data, principles of statistical inference via resampling, and other techniques.
- **223. INTERMEDIATE STATISTICS 3 cr.** Prerequisite: MT 122 or chair permission. Power analysis, factorial and repeated measures, analysis of variance, nonparametric procedures, contingency tables, introduction to multiple regression. Use of appropriate statistical software.
- **228. STATISTICS FOR THE BIOLOGICAL SCIENCES 3 cr.** Prerequisite: MT 135 or equivalent. Exploratory data analysis, probability fundamentals, sampling distributions and the Central Limit Theorem, estimation and tests of hypotheses through one-factor analysis of variance, simple linear regression, and contingency tables using appropriate statistical software. Course content in biology context.
- **229. PROBABILITY AND STATISTICS 3 cr.** Prerequisite: MT 136. Probability, discrete and continuous distributions, sampling distributions and the Central Limit Theorem, introduction to data analysis, estimation and hypothesis testing, simple linear regression and correlation; use of appropriate statistical software.
- **233.** CALCULUS AND ANALYTIC GEOMETRY III 4 cr. Prerequisite: MT 136. Calculus of vector-valued functions; partial differentiation; multiple, line, and surface integrals.
- **241.** NUMERICAL AND ALGEBRAIC CONCEPTS FOR MIDDLE SCHOOL MATHEMATICS TEACHERS 3 cr. Prerequisites: MT 135; MT 160 or MT 200. For students seeking licensure to teach mathematics in grades 4-9. Topics include properties of the integers,

- rational and irrational numbers, algebra and algebraic thinking, sequences, functions, and sets. Students will learn to communicate in the precise language of mathematics, to make connections among mathematical systems, and to construct valid mathematical arguments and proofs.
- **242. INTRODUCTION TO LINEAR ALGEBRA 3 cr.** Prerequisite: MT 136. Algebra of matrices, linear systems, vector spaces, linear transformations, eigenvectors, and applications. (May not be counted toward the mathematics majors.)
- **251. GEOMETRY FOR MIDDLE SCHOOL MATHEMATICS TEACHERS 3 cr.** Prerequisites: MT 135; MT 160 or MT 200. For students seeking licensure to teach mathematics in grades 4-9. Examination of geometric concepts related to the middle-school curriculum. Axiomatic foundations and transformational geometry. The use of teaching manipulatives and dynamic geometry software to promote understanding. An emphasis on various types of mathematical reasoning needed to establish geometric credibility.
- **271. DISCRETE MATHEMATICS AND MATRIX ALGEBRA 3 cr.** Prerequisite/ corequisite: MT 136. Introduction to mathematical proof and logic, sets, functions and relations, counting principles, graphs, matrix operations, and mathematical induction.
- 299. SPECIAL TOPICS IN MATH 1-3 cr. Subject announced in schedule of classes.
- **322. APPLIED REGRESSION ANALYSIS 3 cr.** Prerequisite: MT 223 or 228 or 229 or chair permission. Multiple linear regression, collinearity, model diagnostics, variable selection, nonlinear models, logistic regression; use of appropriate statistical software.
- **331. INTRODUCTION TO REAL ANALYSIS 3 cr.** Prerequisites: MT 136, 271. Rigorous mathematical treatment of the fundamental ideas of calculus: sequences, limits, continuity, differentiation, and integration.
- **342. INTRODUCTION TO LINEAR ALGEBRA AND VECTOR SPACES 3 cr.** Prerequisite: MT 271. Algebra of matrices, linear systems, vector spaces, linear transformations, eigenvectors, and applications.
- **343. INTRODUCTION TO ABSTRACT ALGEBRA 3 cr.** Prerequisite: MT 271. Groups, homomorphisms, permutations, quotient groups, rings, ideals, integral domains, fields, polynomial rings, and factorization.
- **421. PROBABILITY AND STATISTICS II 3 cr.** Prerequisites: MT 229, 233. Moment generating functions, transformations, properties of estimators, foundations of hypothesis tests, one- and two-factor analysis of variance, and nonparametric analyses.
- **422. APPLIED STATISTICS 3 cr.** Prerequisites: MT 223 or 228 or 229 or chair permission. Multi-factor analysis of variance, interaction, serial correlation, time series, forecasting, multivariate data, categorical data; data reduction; simulation; analysis of large datasets; use of appropriate statistical software.
- **425. OPERATIONS RESEARCH 3 cr.** Prerequisite: MT 271. Linear programming, sensitivity analysis and duality, queuing theory, topics from networks, decision making, game theory, Markov chains, dynamic programming, and simulation.
- **432. ADVANCED CALCULUS OF SEVERAL VARIABLES 3 cr.** Prerequisite: MT 233. Development of and motivation for vectorvalued functions, calculus of functions of several variables, implicit functions and Jacobians, multiple integrals, and line integrals.
- **436. INTRODUCTION TO COMPLEX ANALYSIS 3 cr.** Prerequisite: MT 271 or permission of department chair. Complex number plane, analytic functions, integration of complex functions, sequences and series, residue theorem, and evaluation of real integrals.

- **450. EUCLIDEAN AND NONEUCLIDEAN GEOMETRY 3 cr.** Prerequisite: MT 271 or permission of department chair. Alternative ways of investigating the Euclidean plane, including transformational geometry; examination of the parallel postulate and how it can be changed to create new geometries; hyperbolic geometry.
- **452. ELEMENTARY TOPOLOGY 3 cr.** Prerequisite: MT 271. Topological spaces, homeomorphisms, connected spaces, compact spaces, regular and normal spaces, metric spaces, and topology of surfaces.
- **453. DIFFERENTIAL EQUATIONS AND DYNAMICAL SYSTEMS 3 cr.** Prerequisite: MT 233. Introduction to the qualitative study of differential equations and related dynamical systems. Topics include first-order differential equations, planar systems and their dynamical classification, general nonlinear systems and their equilibria, closed orbits, limit sets, discrete systems, and applications to mechanics.
- **456. FRACTAL GEOMETRY 3 cr.** Prerequisite: MT 271. Topics from metric spaces, transformations, iterated function systems, dynamical systems, fractal dimension, Julia sets, and Mandelbrot sets.
- **468. THEORY OF NUMBERS 3 cr.** Prerequisite: MT 271. Divisibility theorems, numbertheoretic functions, primitive roots, quadratic congruences and reciprocity, partitions.
- **469. HISTORY OF MATHEMATICS 3 cr.** Prerequisite: MT 271. Study of mathematics from its origins to its present state. Topics include the development and impact of geometry, algebra, number theory, irrational numbers, analytic geometry, calculus, nonEuclidean geometry, and infinite sets.
- **479. COMBINATORICS AND GRAPH THEORY 3 cr.** Prerequisite: MT 271. Pigeonhole principle, inclusion and exclusion, recurrence relations and generating functions, combinatorial designs, the theory of graphs, graphical optimization problems.
- **480. SPECIAL TOPICS cr. TBA.** Readings about, reports on, and investigation of selected material and topics.
- **499. INDEPENDENT STUDY IN MATHEMATICS 1-4 cr.** Prerequisites: permission of chair and instructor. For the student seeking a research project under faculty supervision.



Military Science (MS) (ARMY ROTC)

Professor: D. Hazelwood (Chair); Assistant Professors: J. McCluskey, D. Junior

General Information

The Department of Military Science is also known as the Reserve Officers Training Corps (ROTC) department. Military science basic courses at the 100 and 200 levels are open to all students as electives. Credits toward a baccalaureate degree are awarded for all military science courses.

The department was established in April 1950 at the request of John Carroll University and with the approval of the U.S. Department of the Army. This department is both an academic entity of the University and an Instructor Group of the U.S. Army. It is staffed by the Army with the approval of the University president. The instructors are professional Army Commissioned and Non-Commissioned officers whose academic backgrounds meet University standards.

The goal of the department is to help prepare young men and women for service as Army officers—the future leadership of the Army. Through its courses, the department develops leadership and management skill in the cadets so they may be successful leaders in the U.S. Army. The department also provides instruction to the student body in general on the role of the military in America, focusing on military skills, leadership, adventure training, and the role of the military in our society.

Basic Program (MS I, MS II)

Students normally take the basic courses during the freshman and sophomore years. Students taking any or all of the basic courses incur no military obligation and are not members of the armed forces. Completion of the basic courses is one means of meeting the Prerequisite for acceptance into the advanced courses. Prior active military service, prior or current Reserve or National Guard service, or attendance at the summer ROTC Leadership Training Course may also fulfill the basic course requirements. In the case of prior active military service or prior/current Reserve or Guard status where the service member received an honorable discharge or continues to serve honorably, basic course requirements are waived and academic credit may be granted for these particular substitutes. A total of 6 credit hours may be awarded for equivalency credit for MS 101, 102, 201, and 202 with the approval of the department chair and the dean. These credits may be awarded to any veteran student, even if they are not a participating or contracted ROTC cadet.

Advanced Program (MS III, MS IV)

Students normally take the advanced courses during their junior and senior years. These heavily involve tactics, leadership, and management instruction to prepare

students for the leadership role of an Army officer at the rank of Second Lieutenant. Students must be accepted by the chair of the military science department before they can enroll in the advanced courses

The Boler School of Business will also grant management credit by petition to ROTC Advanced Program students who are majoring in management.

Once accepted, each student enters into a contract with the Army to complete the courses and to accept a commission as an Army officer. While taking the advanced courses, each student is paid a subsistence allowance of \$450-\$500 a month during the school year.

All students enrolled in the advanced courses are required to attend a Leadership Development and Assessment Course of four weeks' duration. Students are paid at one-half the pay of a Second Lieutenant and normally attend this camp during the summer between their junior and senior years.

Upon satisfactory completion of the advanced courses and conferral of the baccalaureate degree, students are commissioned Second Lieutenants and serve out a military obligation, depending on their active duty or reserve force assignment. Students may request either Active Duty or Reserve Force Duty (Army Reserve/National Guard). Under certain conditions, students who have completed the baccalaureate program and their military science studies may request delayed entry into the active Army in order to pursue graduate study in a variety of areas, including medical and law school. Other options available to students in military science are opportunities to attend Airborne, Air Assault, Northern Warfare, and Mountain Warfare training courses, and Troop Leadership Time, spending a few weeks working with a Lieutenant in an active Army unit.

Scholarships

The Department of the Army annually awards three-year and four-year Advanced Designee scholarships on a competitive basis to high school applicants nationwide. Winners are announced throughout the spring semester. College students can also apply for a campus-based Army scholarship throughout the year for either undergraduate or graduate studies. These scholarships may be awarded throughout the academic year. In order to apply for any of these scholarships, applicants must have a GPA of 2.5 or higher, as well as a minimum SAT score of 920 or ACT score of 19; pass the Army medical physical; meet the physical fitness requirements; and interview with the department chair. Two-year scholarships are also available to graduating seniors who will be attending graduate school.

All scholarships will pay the full tuition rate for the University. John Carroll University currently waives room and board fees for scholarship cadets. Scholarships also include lab fees, graduation fee, a book allowance of \$1200 per year, and a \$300-\$500 per month subsistence during the school year (maximum of \$5,000 per year).

Partnership Institutions

John Carroll University maintains partnership agreements with most Clevelandarea colleges. Students from these institutions may enroll in John Carroll's military science classes with the approval of the academic registrar from their own college. Satisfactory completion of the military science curriculum and the baccalaureate degree from their own college leads to a commission as a Second Lieutenant in the same manner as for John Carroll students.

Eligibility

All University students are eligible for enrollment in the basic courses (MS I and MS II). Students who are 18 years of age, who are American citizens or intend to become naturalized, and who are physically qualified are eligible for enrollment in the advanced courses of the military science department. Any student may audit basic courses in the department with the approval of the chair and appropriate institutional authorities

Professional Military Educational (PME) Requirements

The professional military education component consists of two essential parts – a baccalaureate degree, and at least one undergraduate course from each of the three following designated fields of study: written and oral communication skills, U.S. military history, and computer literacy. Students are encouraged to take a course in national security affairs and management. Students may determine suitable courses to meet these requirements by securing approval in advance of registration from the military science department chair. The Core Curriculum requirements may also apply to the PME requirements. The military science department maintains a list of University courses that may be accepted for the PME requirement.

Basic Program

Note: These courses may not be used to satisfy Core or major requirements.

- **101. LEADERSHIP AND PERSONAL DEVELOPMENT 1 cr.** Establishes a framework for understanding officership, leadership, and Army values. Also addresses personal development skills, including physical fitness and time management.
- **102. INTRODUCTION TO TACTICAL LEADERSHIP 1 cr.** Focuses on communications, leadership, and problem solving. Introduces students to the duties and responsibilities of an Army lieutenant as well as examining current pay and benefits.
- **130. INTRODUCTION TO BASIC PHYSICAL CONDITIONING (PE 130) 1 cr.** Introduction to the basics of physical conditioning and its benefits. Modeled on the U.S. Army method of increasingly challenging exercises in order to build aerobic skills and endurance leading to enhanced physical fitness. Principal aspects of stretching, conditioning, and recovery; also, cardiovascular and respiratory fitness, weight control, and stress control.

- **131. ADVANCED PHYSICAL CONDITIONING (PE 131) 1 cr.** Builds on the student's knowledge of physical conditioning to increase physical fitness. Modeled on the U.S. Army method of increasingly challenging exercises in order to build aerobic skills and endurance leading to enhanced physical fitness. Principal aspects of stretching, conditioning, and recovery; also, cardiovascular and respiratory fitness, weight control, and stress control.
- **132. LEADERSHIP IN PHYSICAL TRAINING (PE 132) 1 cr.** Develops the ability to plan, organize, and lead a physical conditioning program and evaluate others conducting physical training. Uses the U.S. Army physical conditioning method.
- **133. ADVANCED LEADERSHIP IN PHYSICAL TRAINING (PE 133) 1 cr.** Develops the ability to plan, organize, and lead a physical conditioning program and evaluate others conducting physical training. Uses the U.S. Army physical conditioning method.
- **198. BASIC COURSE INDEPENDENT STUDY 1-3 cr.** Prerequisites: permission of chair and instructor; freshman or sophomore standing. Current topics affecting the U.S. Army, how junior leaders put into effect policy decisions made by elected political leaders, and how the Army operates in regard to the directives of the U.S. Constitution on national defense. Requires a briefing or paper.
- **199. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr.** Provides a practical application of the topics covered in class and is mandatory for all contracted students. Topics consist of land navigation, marksmanship, map reading, drill and ceremonies, physical training, water survival, health and fitness, combat orders, formations, inspections, and preparation for LDAC/LTC. ROTC cadre supervise the labs, which are planned and managed by the MS III students with command and control administered by the MS IV students.
- **201. INNOVATIVE TEAM LEADERSHIP 2 cr.** Corequisite: MS 299. Use of ethics-based leadership skills to develop individual abilities and contribute to effective team-building. Focus on skills in oral presentations, writing concisely, planning of events, coordination of group efforts, advanced first aid, land navigation, and basic military tactics. Provides the fundamentals of ROTC's Leadership Development Program. Participation in a weekend field training exercise is optional but encouraged.
- **202. FOUNDATIONS OF TACTICAL LEADERSHIP 2 cr.** Corequisite: MS 299. Introduction to individual and team aspects of military tactics in small-unit operations. Includes use of radio communications, making safety assessments, movement techniques, planning for team safety/security, and methods of pre-execution checks. Practical exercises with upper-division ROTC students. Techniques for training others as an aspect of continued leadership development. Participation in a weekend exercise is optional but encouraged.
- 213. ORIENTEERING (PE 213) 1 cr. Develops students' ability to determine location on a map, plot a course over familiar and unfamiliar terrain, and end at a known/desired location. Uses U.S. Army standard maps and equipment. Detailed introduction to the principles of land navigation and orienteering, including map reading, compass use, terrain association, pace count, plotting techniques, route planning, and safety and survival in various environments.
- **298. INDEPENDENT STUDY 1-3 cr.** Prerequisites: permission of chair and instructor. Indepth study on a tutorial basis of a particular problem, approved by the chair and directed by a member of the department or by a member of the Veterans' Affairs office with faculty credentials. Requires a paper.
- 299. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr. See MS 199 for description.

Advanced Program

Note: The following courses are open only to contracted ROTC students. Credits earned may apply toward graduation (see note under Basic Courses).

- **301. ADAPTIVE TACTICAL LEADERSHIP 3 cr.** Prerequisite: permission of the department; corequisite: MS 399. Challenges students to study, practice, and evaluate adaptive leadership traits and skills as they are presented with scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on feedback and self-evaluations, cadets continue to develop their leadership dimensions and critical thinking abilities. Requires participation in semiweekly one-hour sessions for physical fitness and in a weekend field training exercise; one or two weekend exercises are offered for optional participation.
- **302. LEADERSHIP IN CHANGING ENVIRONMENTS 3 cr.** Prerequisite: MS 301; corequisite: MS 399. Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Cadets review aspects of combat, stability, and support operations, conduct military briefings, and develop proficiency in garrison operations orders and plans. The focus is on exploring, evaluating, and developing skills in decision making, persuading, and motivating team members. Cadets are evaluated on what they know and do as leaders in preparation for their summer Leadership Development and Assessment Course. Requires participation in semiweekly one-hour sessions for physical fitness and in a weekend field training exercise; one or two weekend exercises are offered for optional participation.
- **399. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr.** See MS 199 for description.
- **401. DEVELOPING ADAPTIVE LEADERS 3 cr.** Prerequisite: MS 302; corequisite: MS 499. Develops student proficiency in assessing, planning, and executing complex operations, functioning as a member of a staff, and providing leadership performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to Army officers. Students will analyze, evaluate, and instruct cadets at lower levels. Both their classroom and battalion leadership experiences are designed to prepare MS 401 cadets for their first unit of assignment. They identify responsibilities of key staff, coordinate staff roles, and use situational opportunities to teach, train, and develop subordinates. Requires participation in semiweekly sessions for physical fitness and in one weekend exercise.
- **402. LEADERSHIP IN A COMPLEX WORLD 3 cr.** Prerequisite: MS 401; corequisite: MS 499. In-depth exploration of the dynamics of leading in the complex situations of current military operations. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. The course places significant emphasis on preparing cadets for their first unit of assignment. It uses case studies, scenarios, and "What now, Lieutenant?" exercises to prepare cadets to face the complex ethical and practical demands of leading as commissioned officers in the U.S. Army. Requires participation in semiweekly sessions for physical fitness and in one weekend exercise.
- **499. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr.** See MS 199 for description.

Modern Languages (ML)

Courses in modern languages are offered by the Department of Classical and Modern Languages and Cultures. (Information on the department and a listing of its faculty can be found on page 167.) Designated as ML, this body of courses includes offerings on pedagogy (e.g., ML 308) and on modern languages not regularly taught at John Carroll.

- **101. BEGINNING MODERN LANGUAGE I 3-4 cr.** A language not traditionally or commonly taught. Intensive functional approach to the four language skills. Classroom, multimedia, computer-assisted instruction. Emphasis on listening, speaking, and pronunciation.
- **102. BEGINNING MODERN LANGUAGE II 3-4 cr.** Prerequisite: ML 101 or equivalent. Amplification of language skills. Emphasis on reading and writing.
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Supervised independent study of language at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Prerequisite: permission of instructor. Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE MODERN LANGUAGE I, II 3 cr. each.** Prerequisite: ML 102 or equivalent. Further development of the four language skills for communication in a cultural context; expanding of vocabulary, idiomatic usage, and grammar. ML 201 or equivalent Prerequisite for ML 202.
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of language at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301-302. ADVANCED MODERN LANGUAGE I, II 3 cr. each.** Prerequisite: ML 202 or equivalent. Advanced study of the four language skills for communication in a cultural context; expansion of vocabulary, idiomatic usage, and grammar. ML 301 or equivalent Prerequisite for ML 302.
- **308. TEACHING LANGUAGES 3 cr.** Prerequisite: ML 202 or equivalent in a classical or modern language. Basic introduction to the construction of languages, the theoretical underpinnings of teaching foreign languages, and the application of these theories. Students reflect on their own development as language learners and future educators.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.

Peace, Justice, and Human Rights (PJHR)

Program Director: R. D. Clark (Sociology and Criminology); Advisory Committee: M. P. Berg (History), M. O. Finucane (Communication and Theatre Arts), D. R. Hahn (Political Science), J. L. Lissemore (Biology), P. J. Metres (English), M. J. Peden (Political Science), T. L. Schubeck, S. J. (Theology and Religious Studies), J. R. Spencer (Theology and Religious Studies), J. Ziemke (Political Science)

The program in Peace, Justice, and Human Rights combines undergraduate research and study with experiential and service learning to help students gain both theoretical and empirical understanding of the challenges and possibilities of peace-building and conflict resolution. Drawing on Catholic social teaching that sees peace as inseparable from justice and the extension of human rights as a fundamental ethical obligation, the program also emphasizes the importance of political pluralism, cultural and religious diversity, ecological balance, and nonviolent conflict resolution and transformation. Its fundamental goal is to equip students with the knowledge, skills, and creativity to seek justice and promote peace.

Major and Minor Requirements

Major in PJHR: 36 credit hours. PJHR 101, 375, and 401 are required. At least one other 400-level class from the list of approved courses. At least 18 credits at the 300 or 400 level (normally from at least three different departments/disciplines). In consultation with (and approval by) a PJHR advisor, the student will create a set of at least six coherent courses that will be the focus of his or her studies. These courses will fit into one of three following categories (A, B, or C) and into a subset within that category:

- A. Regional Studies (e.g., Latin American, Africana, East Asian, Modern European, or Near East Studies)
- B. Global Issues (e.g., Environmentalism, Poverty, Sectarian Conflict, Social Justice and Postcolonialism, Globalization, Diasporic Studies, or Post-Conflict Reconstruction)
- C. Themes (e.g., Peace, Justice, or Human Rights)

Minor in PJHR: 21 credit hours. PJHR 101, 375, and 401 are required. Students must take at least four additional 3-credit courses (normally from at least two different departments/disciplines). Courses other than the three required PJHR courses will be selected from the list of approved PJHR courses.

Please see the program web page (http://sites.jcu.edu/pjhr/) for the most current listing of approved courses. The specific courses required may change depending upon course offerings of other departments.

- **101. INTRODUCTION TO PEACE, JUSTICE, AND HUMAN RIGHTS 3 cr.** Considers basic human rights issues, such as freedom from slavery, the right to housing, the death penalty, refugees, humanitarian intervention, forgiveness and reconciliation for past injustices, and torture. Examines the concept of human rights as developed over the centuries, drawing heavily upon the United Nations Universal Declaration of Human Rights. Focuses primarily—but not exclusively—on the United States, Afghanistan, and Iraq, and provides opportunities for students to pursue issues and case studies of their own interests.
- 110. PEACE, JUSTICE, AND HUMAN RIGHTS ADVOCACY PRACTICUM 1-3 cr. Prerequisite: permission of instructor. On-campus advocacy project requiring at least 3-5 hours per week for one semester. The project will engage the campus community in a peace, justice, or human rights issue through activities such as educational seminars, workshops, speakers, activities, and legislative advocacy. A written project proposal must be submitted to the program director by the end of the second week of the semester.
- **201. GLOBAL JUSTICE & SERVICE 1 cr.** Designed to increase awareness of social issues threatening the local and global community. Representatives of non-governmental organizations (NGOs) in the Cleveland area will present an overview of their work, its role in addressing social concerns, and how individuals may become more involved. Service learning component required.
- **299. SPECIAL TOPICS 1-3 cr.** Specialized focus on select areas and issues in peace, justice, and human rights. Specific topic and number of credits announced in the semester course schedule.
- **375. INTERNSHIP IN CONFLICT TRANSFORMATION 3-6 cr.** Prerequisite: permission of PJHR instructor. Participation in internship or experiential/service learning opportunity in a setting that focuses on peace building, social justice, and/or human rights. The student will be required to analyze the experience from personal and theoretical perspectives. May be fulfilled by successful participation in an appropriate service learning course. The PJHR Director will approve alternatives on a case-by-case basis.
- **401. CAPSTONE COURSE IN PEACE, JUSTICE, AND HUMAN RIGHTS 3 cr.** Topic to be developed by the director and the advisory committee and listed in the semester schedule. Requires a research paper demonstrating knowledge of the field and relevant methodologies. Course will be offered as lecture or independent study.



Philosophy (PL)

Professors: C. R. Bukala, S.J., H. J. Gensler, S.J., B. A. Wirkus, E. W. Spurgin, M. J. Ortega, S. M. Kaye; Associate Professors: W. L. Langenfus, T. Nlandu, D. Taylor (Chair), M. A. Eng; Assistant Professors: W. M. Bichl, S.J., P. J. Mooney, S. L. Fitzpatrick; Visiting Assistant Professor: N. Mitra

Philosophy helps us understand ideas that have profoundly influenced world civilizations; develop an outlook on life that is broad, coherent, and reflective; and deal with ideas logically and critically. Every educated person needs at least a basic understanding of philosophy, since it serves as a framework for all knowledge. At Jesuit schools, philosophy has always had a special place; indeed, the Jesuit order was founded by a group of philosophy students led by St. Ignatius of Loyola, who completed an M.A. in philosophy. A strong background in philosophy is a mark of those educated in Jesuit institutions.

The University Core requirement in philosophy consists of three courses: PL 101, an introduction to philosophy; a 200-level course on some period of, or problem in, the history of philosophy; and a 300-level course chosen from a variety of philosophical topics. PL 101 must be taken first, but the 200-level and 300-level courses may be taken in either order. Since philosophy is rarely taught in high school, PL 101 is needed to introduce the nature of philosophical thinking and the skills required for further in-depth studies. The history of philosophy courses explore specific historical periods, approaches, and movements. They focus on a related group of thinkers (such as existentialist, ancient Greek, or African) and their worldviews. They also emphasize how ideas develop over time, how historical context affects us, and how different thinkers interact. The 300-level courses investigate philosophical questions that emerge from other disciplines. They focus on questions such as "Is there a God?," "How are scientific theories established?," or "What is the moral status of specific business, scientific, or social practices?"

A philosophy major prepares students for graduate work leading to college teaching, or for professional schools in areas such as law, medicine, religion, and social service. A philosophy major also is a solid basis for any broad program of humanistic studies. A minor in philosophy can complement other areas of study that raise questions about values or methodology, including law, business, education, and the sciences.

Major and Minor Requirements

Major in Philosophy. 36 credit hours (27 beyond Division V Core requirements): PL 101; two seminars (PL 450), or one seminar and a senior thesis (PL 495); and nine additional courses. Students either take at least four 200- and four 300-level courses of their choice or follow one of the four specialized curricular tracks below.

Borromeo Seminary Institute Major in Philosophy. 36 credit hours: PL 101, 240, 246, 301, 304, 308, 368, 387, 395, 396; one course chosen from PL 210, 220, 260, 270, 275. Either one seminar (PL 450) or a senior thesis (PL 495).

Minor in Philosophy. 18 credit hours (9 beyond Division V Core requirements): PL 101, a 200-level course, a 300-level course, PL 450, and two electives. Students electing to pursue a specialized minor should choose their 200- and 300-level courses from within one of the four curricular tracks described below.

Specialized Tracks within Philosophy

The philosophy department affords its majors and minors the opportunity to design their own program of study by taking a range of courses or to focus their study within a particular area of specialization. Students electing focused study may choose from among the following curricular tracks:

- **I. History of Philosophy.** Students in the History of Philosophy track study a broad selection of the discipline's landmark texts, fundamental theories, and prominent figures. Majors thus become familiar with answers to key philosophical questions that vary widely in their philosophical approaches, their means of expression, and their emergence historically. This track provides an excellent foundation for students interested either in enhancing their liberal arts education or in preparing for advanced study in the field.
 - A. PL 210
 - B. Either PL 215 or 220
 - C. PL 240
 - D. One of: PL 245, 250, or 255
 - E. Either PL 270 or 275
 - F. One of: PL 260, 285, 286, or 290
 - G. One 300-level course
 - H. PL 450
 - One elective, which may be from another department whose offerings complement this track.

- **II. Critical Social Philosophy.** The Critical Social Philosophy track is recommended for students interested in the philosophical analysis of power and the social and political conditions that create and perpetuate oppression and injustice. It is ideal for students interested in pursuing careers in multicultural settings or planning to do graduate work in such areas as social or political theory, Continental philosophy, ethnic studies, women's and gender studies, or sociology.
 - A. Two courses from each of the following three subdivisions (18 hours total).
 - 1. Courses in Social and Political Theory: PL 245, 250, 255, 289
 - 2. Courses in Diverse Philosophical Traditions: PL 285, 290, 298, 330, 380
 - 3. Courses in Applied Topics in Social and Political Philosophy: PL 370, 385, 388, 390
 - 4. PL 450
 - B. Two electives, one of which may be from another department whose offerings complement this track.
- **III. Philosophy, Law, and Politics.** The Philosophy, Law, and Politics track is recommended for students who are interested in the philosophical study of law and its relation to morality, politics, and the state. This track provides excellent preparation for careers in the legal profession, politics, and government.
 - A. PL 210 or 240
 - B. PL 289
 - C. PL 280 or 302
 - D PL 301 or 360
 - E. PL 368
 - F. PL 320
 - G. PL 450
 - H. Two electives, one of which may be from another department whose offerings complement this track.
- **IV. Health, Ethics, and Science.** The Health, Ethics, and Science track is recommended for students interested in social, ethical, and foundational issues related to science and medicine. This track is ideal for students who wish to pursue careers in healthcare or the sciences, as well as those who are planning to do graduate work in areas such as applied ethics, science and technology studies, cognitive science, and philosophy of science.
 - A. PL 210, 220, or 240
 - B. PL 280 or 302
 - C. PL 316
 - D. PL 375
 - E. PL 396
 - F. One of: PL 301, 314, 315, 360, or 379
 - G. PL 450
 - H. Two electives, one of which may be from another department whose offerings complement this track.

Lists of approved electives from other departments for all tracks are available in the philosophy department. Alternative courses must be approved by the student's advisor and the department chair.

- **INTRODUCTION TO PHILOSOPHY.** Discovery of the world of philosophy. Since students are taught by a philosophically diverse group of scholars in PL 101, they will bring a rich array of viewpoints and arguments to their 200- and 300-level courses.
- **101. INTRODUCTION TO PHILOSOPHY 3 cr.** Introduction to the central problems and methods of philosophy through the critical examination of texts of major philosophers. Emphasis on developing skills for reading and writing philosophy.
- **HISTORY OF PHILOSOPHY.** Explores specific periods, approaches, and movements.
- **210. ANCIENT GREEK PHILOSOPHY 3 cr.** Ancient Greek philosophical thought, with major emphasis on the works of Plato and Aristotle.
- **215. AUGUSTINE AND LATE ANTIQUITY 3 cr.** Philosophical thought from Aristotle through Augustine, focusing on Epicureanism, Stoicism, Skepticism, Cynicism, and neo-Platonism.
- **220. MEDIEVAL PHILOSOPHY 3 cr.** Medieval philosophy, including the thought of Augustine, Aquinas, and other major figures.
- **230. CHRISTIAN THINKERS 3 cr.** Philosophical problems raised by selected Christian writers, both classical and contemporary.
- **240. 17th- AND 18th-CENTURY EUROPEAN PHILOSOPHY 3 cr.** History of early modern philosophy with special attention given to the beginnings of modern science and its impact on Western ideas about nature, knowledge, mind, and God. Readings include selections from Descartes to Kant.
- **245. 19th-CENTURY EUROPEAN PHILOSOPHY 3 cr.** Study of some of the major figures of the nineteenth century from Fichte through Nietzsche.
- **246. 19th- AND 20th-CENTURY PHILOSOPHY 3 cr.** Study of some major movements and figures of the period, such as German Idealism, dialectical materialism, atheistic humanism, positivism, pragmatism, existentialism, and phenomenology. Offered at Borromeo Seminary.
- **250. CONTINENTAL PHILOSOPHY 3 cr.** Key figures in the development of Continental thought from Husserl to Derrida.
- **255. MARXISM AND CRITICAL THEORY 3 cr.** Main philosophical and political-economic ideas of Karl Marx, and their reinterpretation by members of the twentieth-century "Frankfurt School."
- **260. AMERICAN PHILOSOPHY 3 cr.** History of American philosophy as it develops as an ethnophilosophy and through the works of key figures of such trends as Puritanism, Enlightenment, transcendentalism, and pragmatism.
- **265. EXISTENTIALISM AND PHENOMENOLOGY 3 cr.** Main figures in the existential and phenomenological movements, such as Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, Merleau-Ponty, and Marcel.

- **270. ANALYTIC PHILOSOPHY 3 cr.** Study of some of the leading figures in British and American analytic philosophy, including Moore, Russell, Wittgenstein, and Quine.
- **275. RECENT AND CONTEMPORARY PHILOSOPHY 3 cr.** Exploration of themes and problems in philosophy since 1950, including an investigation of the very nature and definition of the philosophical enterprise. May include readings from analytic, Continental, post-modern, and neo-pragmatist philosophers.
- **280. MAJOR MORAL PHILOSOPHERS 3 cr.** Some of the most important contributions of philosophers to an understanding of the nature of morality and ethical reasoning. Readings of classic works in moral philosophy from the Greeks to the present.
- **285. AFRICAN PHILOSOPHY 3 cr.** Examination of the development, definition, and status of African philosophy, exploring both its unique cultural heritage and its relationship to themes of Western philosophy.
- **286. ASIAN AND COMPARATIVE PHILOSOPHY 3 cr.** Exploration of Asian philosophical traditions such as Hinduism, Confucianism, Daoism, Buddhism, and Japanese philosophy. Also includes readings by contemporary comparative philosophers who study the similarities and differences among Asian philosophical traditions and between Asian and Western philosophies.
- **289. SOCIAL AND POLITICAL PHILOSOPHY 3 cr.** Nature and function of the state, the grounds of political obligation, and such related concepts as liberty, equality, and justice through an examination of major political thinkers in their historical context.
- **290. MAJOR WOMEN PHILOSOPHERS 3 cr.** Study of the philosophical contributions of women philosophers from ancient times to the present.
- **298. SPECIAL TOPICS IN THE HISTORY OF PHILOSOPHY 1-3 cr.** In-depth historical study of specific philosophical theories and problems or of a particular philosopher's work.
- **PHILOSOPHICAL TOPICS.** Integrates understanding of philosophy with other disciplines.
- **301. INTRODUCTION TO LOGIC 3 cr.** Study of modern formal logic and its use in appraising the correctness of reasoning. Covers areas such as syllogisms, propositional logic, basic quantificational logic, basic modal logic, formal proofs, and informal fallacies. Not open to students with credit in PL 360.
- **302. INTRODUCTION TO ETHICS 3 cr.** Investigation into the basic principles of morality and into the nature and methodology of moral judgments. Not open to students with credit in PL 280 or PL 368.
- **303. PHILOSOPHY OF LANGUAGE 3 cr.** Implications of linguistic experience beginning with a survey of the main historical approaches to the meaning of language. Consideration of special problems such as sense and reference; thought and language; sign, symbol, and metaphor; linguistics and logic.
- **304.** PHILOSOPHY OF THE HUMAN PERSON 3 cr. Philosophical reflection on some fundamental and enduring questions about human beings and their relationship to the universe. Includes readings from classical and contemporary sources. Offered at Borromeo Seminary.
- **305. PHILOSOPHY OF EDUCATION 3 cr.** Philosophical problems in education, such as the nature of knowledge, ways of learning, ethical issues in teaching, and the social-political dimensions of education.

- **306. PHILOSOPHY AND LITERATURE 3 cr.** Consideration of the nature and meaning of philosophy and literature followed by the study of concepts and issues such as person, freedom and responsibility, good and evil, and intersubjectivity in specific works of literature.
- **307. PHILOSOPHY OF RELIGION 3 cr.** Philosophical problems of religion, such as the nature and ground of religious beliefs, the nature of religious experience, the relation of religion and science, the existence of God, immortality, and evil.
- **308. PHILOSOPHY OF GOD 3 cr.** Exploration of the existence and attributes of God as knowable by reason alone. Includes discussion of religious experience, the relationship of faith and reason, and the problem of evil. Offered at Borromeo Seminary.
- **310. CONTEMPORARY ETHICAL PROBLEMS 3 cr.** Some of the most pressing moral problems of today, with special attention to the philosophical issues involved.
- **311. BUSINESS ETHICS 3 cr.** Prerequisites: EC 201-202. Application of ethical concepts to significant problems of business practice.
- **312. ETHICS IN SPORT 3 cr.** Study of key ethical issues that arise in sports, starting with the fundamental concepts in sport philosophy and concluding with specific problems such as sportsmanship, gamesmanship, the nature of competition, and race and gender equality.
- **314. SCIENCE, TECHNOLOGY, AND ETHICS 3 cr.** Examination of the nature of science and technology. Particular emphasis on ethical problems raised by science and technology.
- **315. APPLIED ETHICS 3 cr.** Different topics involving the application of ethical concepts to specialized areas such as medicine, biology, the environment, and law. Course subject will be listed in the semester schedule.
- **316. BIOETHICS 3 cr.** Examination of current theoretical and practical implications of medical care and biotechnology. Specific topics include death and end-of-life care; organ transplantation; genetic mapping and testing; aging and dementia; fertility and reproduction; access to healthcare; patient rights; and the role of the physician.
- **320. PHILOSOPHY OF LAW 3 cr.** Exploration of theories concerning the nature of law. Special emphasis on the distinction between law and coercion and the relationship between law and morality. Elements of legal reasoning in case law, statutory interpretation, and constitutional adjudication will be discussed in addition to some fundamental aspects of legal liability.
- **330. FEMINIST PHILOSOPHIES 3 cr.** Examination of philosophical perspectives on the definition, roles, and nature of women. Readings from classic works in the history of philosophy and from contemporary feminist philosophers.
- **340. PHILOSOPHY OF HISTORY 3 cr.** Some philosophical problems of history and historical knowledge, such as "the meaning of history" and the nature of historical explanation.
- **350. PHILOSOPHY OF BEAUTY AND ART 3 cr.** Philosophical investigation of beauty and some questions raised by works of art, such as what is a work of art and what are the nature and ground of aesthetic judgments.
- **355. PHILOSOPHY AND FILM 3 cr.** Considers film's status as a mode of philosophical investigation and examines the implications of film for philosophical understandings of perception and identity (including race, class, and gender).

- **360. SYMBOLIC LOGIC 3 cr.** Study of modern formal logic and its use in appraising the correctness of reasoning. Covers at least propositional and quantificational logic (with relations and identity). May also cover areas such as modal logic, deontic logic, belief logic, soundness and completeness, deviant logic, and the history of logic. A more advanced introduction to logic than PL 301, which is a good preparation for this course.
- **368. ETHICAL THEORY 3 cr.** Detailed examination of some of the major philosophical theories about the nature and justification of moral principles of rightness, obligation, and value. Special emphasis is given to the contemporary developments of such theories.
- **370. PHILOSOPHY AND SOCIAL CLASS 3 cr.** Philosophical investigation of social class distinctions, focusing on their structural, moral, and psychological ramifications.
- **375. PHILOSOPHY OF SCIENCE 3 cr.** Major philosophical problems raised by science: the nature of scientific inference, the structure of scientific theories, causality, explanation, scientific change, and the role of values in science.
- **379. PHILOSOPHY OF MIND 3 cr.** The nature of mind and its role in our understanding of persons and their actions. Topics include the mind-body problem, artificial intelligence, consciousness, animal minds, personal identity, and free will.
- **380. PHILOSOPHY AND LATIN AMERICAN LITERATURE 3 cr.** Exploration of several philosophical and literary approaches to the notions of "self" and "other," emphasizing subjectivity and personhood, in the works of canonical philosophers and Latin American authors.
- **385. PHILOSOPHY AND THE BODY 3 cr.** Investigation of the different ways in which classic and contemporary philosophers and theorists have analyzed human embodiment.
- **387. PHILOSOPHY OF NATURE 3 cr.** The philosophical principles of nature, including finality, change, time, and the nature of life. Includes discussion of the relationship of natural philosophy to natural science and theology. Offered at Borromeo Seminary.
- **388. PHILOSOPHY OF LOVE AND SEX 3 cr.** Critical exploration of how we think, speak, and practice the concepts of "love" and "sex" in our daily lives. Course readings are informed by feminist theory, queer theory, postcolonial theory, and/or critical race theory. Topics include media portrayals of love and sex, masculinity and femininity, sexuality, domestic abuse, sexual assault, pornography, sex and oppression, and activism.
- **390. PHILOSOPHY OF RACE AND RACISM 3 cr.** Study of classical and contemporary formulations of the concept of race, the nature of modern and contemporary racism, and contemporary constructions and experiences of racial identity in the U.S.
- **395. METAPHYSICS 3 cr.** Attempt to understand what kinds of things there are in the world through the question of Being and related concepts of existence, thing, property, event, matter, mind, space, time, and causality.
- **396. THEORIES OF KNOWLEDGE 3 cr.** Examination of the nature and sources of knowledge and the means for establishing knowledge claims. Readings from classic works and contemporary writers.
- **398. SPECIAL TOPICS 1-3 cr.** In-depth study of specific philosophical theories and problems or of a particular philosopher's work.

ADVANCED COURSES. Designed for majors and minors.

425. PHILOSOPHY OF THE HUMAN PERSON 3 cr. Philosophical reflection on fundamental and enduring questions about human beings and their relationship to the universe. Readings from classical and contemporary sources. Offered at Borromeo Institute.

450. SEMINAR 3 cr. Specific questions on important topics or philosophers. Course subject will be listed in the semester schedule.

495. SENIOR THESIS 3 cr. Prerequisites: permission of instructor and chair. Individual research project developed and written in consultation with appropriate faculty member. Ordinarily, topic approval will be secured during the spring semester of the student's junior year, and the thesis will be written during the fall semester of senior year. (Student may be required to complete additional preparatory work.)

499. DIRECTED READINGS 1-3 cr. Individual assignment and guidance in source materials relating to specific philosophical problems. A maximum of 3 hours can be used to satisfy major requirements.



Physical Education and Exercise Science (PE)

Associate Professor: K. M. Manning (Program Coordinator); R. P. Dolciato

Physical Education and Exercise Science provides a variety of courses to serve the recreational, fitness, and professional needs of students. An undergraduate may select from two majors, the physical education major or the exercise science major. The physical education and exercise science majors are grounded in the Jesuit ideal of a person in service to others, and integrated into a liberal arts course of study to create a well-balanced Bachelor of Arts. The physical education or exercise science major or minor can be practically and professionally combined with a variety of academic areas, including business, biology, sociology, psychology, and communications.

The Physical Education major is designed to prepare candidates for careers in teaching, fitness, recreation, and graduate school. Candidates interested in an Ohio teaching license will pursue initial licensure course work through the Department of Education.

The Exercise Science major is designed for those interested in graduate school leading to careers specifically in professional areas related to exercise science and the allied health professions, such as athletic training, cardiac rehabilitation, exercise physiology, fitness, nutrition, rehabilitation exercise, sport psychology, strength and conditioning, and wellness. The exercise science major can also lead to careers in other allied health programs such as nursing, occupational therapy, and physical therapy. Candidates seeking admission to graduate programs in exercise science and/or an allied health profession may be required to complete additional course work in the natural sciences and social sciences, as well as meet the GPA requirements for admission to the specific graduate programs. It is the candidate's responsibility to be aware of academic requirements for admission to graduate programs in exercise science and allied health.

Candidates interested in either major are encouraged to meet with the physical education and exercise science academic advisor to map out an inclusive four-year plan for graduation. In addition, candidates interested in a career in an allied health profession should register with the Director of Pre-Health Professions.

The Physical Education major (46 hours) combined with the appropriate teacher education courses may lead to an Ohio Multi-Age teaching license in physical education once all requirements are fulfilled

Major and Minor Requirements

Physical Education and Exercise Science Core. 43 credit hours, required for all major or certification programs: PE 200, 202, 205, 205L, 206, 206L, 207, 208, 310, 407, 408, 409, 420, 430, 432, 435.

Major: Physical Education (can lead to Multi-Age Licensure). 46 hours: PE core plus PE 411. (For Multi-Age teaching license, additional courses in teacher education are required.)

Major: Exercise Science. 55 hours: PE core, plus PE 201, 201L, 230, 304, 304L, 496, or 497.

Physical Education and Exercise Science Minor. 25 hours: PE 202, 205, 205L, 206, 206L, 208, 407, 409, and two electives from the Theory and Methods courses.

Requirements for Acceptance and Continuation as a Physical Education or Exercise Science Major

The application process includes:

1. Application Process

- A formal meeting with the academic advisor for Physical Education and Exercise Science.
- An evaluation of academic course work.
- A statement of professional goals and expectations related to the field of physical education or exercise science.
- The fulfillment of the following academic requirements:
 - Physical Education majors or Exercise Science majors
 - 2.0 or higher major GPA
 - 2.0 or higher overall GPA
 - Physical Education majors pursuing the Ohio Multi-Age Teaching License:
 - 2.7 overall GPA
 - 2.7 physical education GPA
 - 2.7 education GPA

2. Acceptance Decisions

- Accept: Student may continue to take Physical Education and Exercise Science course work.
- Conditional Acceptance: Student may continue to take Physical Education and Exercise Science course work, but certain restrictions have been placed on the program. Conditional acceptance may remain in effect for no longer than one (1) academic year.
- Student is not accepted into the major at this point.

3. Continuation in the Major

• Student evaluations will be conducted each semester for continuation in the program.

4. Capstone Experience

Internship: Physical Education (not pursuing licensure) or Exercise Science major

- Students will be interviewed and evaluated by the Internship Coordinator prior to enrollment in PE 497.
- Students not approved for internship will substitute additional contentarea course work.

Student Teaching: Physical Education majors pursuing the Multi-Age Teaching license

• Students will be approved by the Council on Teacher Education for the Student Teaching semester.

5. Exit Assessment

- Graduates will complete a formal exit interview in their final semester of course work.
- Graduates will complete a formal written program evaluation specific to their major.

Activity Courses

Note: Students may apply a maximum of 4 Physical Education (PE 120-180) credits toward graduation requirements and, unless otherwise specified, no more than 8 credits from any combination of AR, CE, FA, or PE (120-180) courses. Credits from PE courses (120-180) may not be used to satisfy Core or major requirements.

- **120. INTRODUCTORY SWIMMING 1 cr.** For the nonswimmer; based on the Red Cross learn-to-swim program.
- **130. INTRODUCTION TO BASIC PHYSICAL CONDITIONING (MS 130) 1 cr.** Introduction to the basics of physical conditioning and its benefits. Modeled on the U.S. Army method of increasingly challenging exercises to build aerobic skills and endurance leading to enhanced physical fitness. Principal aspects of stretching, conditioning, and recovery. Also, cardiovascular and respiratory fitness, weight control, and stress control.
- **131. ADVANCED PHYSICAL CONDITIONING (MS 131) 1 cr.** Builds on the student's knowledge of physical conditioning to increase physical fitness. Modeled on the U.S. Army method of increasingly challenging exercises to build aerobic skills and endurance leading to enhanced physical fitness. Principal aspects of stretching, conditioning, and recovery. Also, cardiovascular and respiratory fitness, weight control, and stress control.
- **132. LEADERSHIP IN PHYSICAL TRAINING (MS 132) 1 cr.** Develops the ability to plan, organize, and lead a physical conditioning program and evaluate others conducting physical training. Uses the U.S. Army physical conditioning method.
- **133. ADVANCED LEADERSHIP IN PHYSICAL TRAINING (MS 133) 1 cr.** Develops the ability to plan, organize, and lead a physical conditioning program and evaluate others conducting physical training. Uses the U.S. Army physical conditioning method.

- 142. BEGINNING GOLF 1 cr.
- 143. INTERMEDIATE GOLF 1 cr.
- 144. BODY CONDITIONING 1 cr.
- 146. BEGINNING TENNIS 1 cr.
- 147. INTERMEDIATE TENNIS 1 cr.
- 161. RACQUETBALL 1 cr.
- 163. HANDBALL 1 cr.
- 170. BASKETBALL 1 cr.
- 174. VOLLEYBALL 1 cr.
- 180. NUTRITION 1 cr.
- 199. SPECIAL TOPICS 1 cr.

Theory and Method Courses

- **200. CURRENT HEALTH ISSUES 3 cr.** Current health issues affecting the daily lives of all people. Physical fitness, mental fitness, behavior, drugs, alcohol, STD, nutrition. Emphasis on current health research; discussion and application of course material.
- **201.** CARE AND PREVENTION OF ATHLETIC INJURIES I 2 cr. Prerequisites: PE 206/206L; corequisite: PE 201L. Introduction to basic concepts of athletic training. Emphasis on common athletic injuries, basic conditioning, prevention, recognition, and treatment of athletic injuries.
- **201L. CARE AND PREVENTION OF ATHLETIC INJURIES LAB I 1 cr.** Corequisite: PE 201. Introduction to basic wrapping and taping techniques used to prevent, care for, and treat athletic injuries. A hands-on laboratory course used to develop these basic skills.
- **202. ADVANCED FIRST AID AND EMERGENCY CARE 2 cr.** Essential information for developing the functional first-aid capabilities required by physical education teachers, coaches, and other special-interest groups. Designed according to the guidelines of the American Red Cross for its course in Advanced First Aid and Emergency Care.
- **203. AMERICAN RED CROSS COMMUNITY CPR 1 cr.** Techniques for basic life support for cardiopulmonary emergencies, as in cardiovascular collapse, ventricular fibrillation, or cardiac standstill. Artificial ventilation and CPR for adults, children, and infants.
- **205. ANATOMY AND PHYSIOLOGY I 3 cr.** Corequisite: PE 205L. Structure and function of the human body, including cells, tissues, and skin, as well as the skeletal, articular, and muscular systems.
- **205L. ANATOMY AND PHYSIOLOGY I LAB 1 cr.** Corequisite: PE 205. Use of slides, human skeletons, and dissections to study cells, tissues, and skin, as well as the skeletal, articular, and muscular systems.
- **206. ANATOMY AND PHYSIOLOGY II 3 cr.** Prerequisite: PE 205; corequisite: PE 206L. Structure and function of the body, including the nervous, circulatory, lymphatic, respiratory, renal, and digestive systems.

- **206L. ANATOMY AND PHYSIOLOGY II LAB 1 cr.** Corequisite: PE 206. Dissection, examination of animal hearts and brains, and use of various measuring devices for studying the nervous, circulatory, respiratory, renal, and digestive systems.
- **207. FOUNDATIONS OF PHYSICAL EDUCATION AND EXERCISE SCIENCE 3 cr.** Major ideas, institutions, movements, and individuals in the fields of physical education and exercise science. Includes an examination of potential careers in physical education, exercise science, and allied health professions.
- **208. PHYSICAL GROWTH AND DEVELOPMENT 3 cr.** Study of lifespan normal developmental patterns (cognitive, sensory, neurological, skeletal, muscular, emotional, and social), and the relative influence of these systems on neuromotor maturation, motor skills development, and learning across the lifespan.
- 213. ORIENTEERING (MS 213) 1 cr. Designed to develop students' ability to determine their location on a map, plot a course to travel/navigate over familiar and unfamiliar terrain, and end at a known/desired location. U.S. Army standard maps and equipment. A detailed introduction to the principles of land navigation and orienteering that includes map reading, compass use, terrain association, pace count, plotting techniques, route planning, and safety and survival in hot and cold weather environments.
- **230. NUTRITION FOR ATHLETICS AND PHYSICAL ACTIVITY 3 cr.** Overview of basic nutritional guidelines relevant to daily life; the role of nutrition in the development and efficiency of energy systems for physical and athletic performance; and disabilities related to insufficient or inappropriate nutritional practices.
- **299. SPECIAL TOPICS 2-3 cr.** Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.
- **304.** CARE AND PREVENTION OF ATHLETIC INJURIES II 2 cr. Prerequisites: PE 201 and 201L; corequisite: PE 304L. Topics from PE 201 expanded: in-depth examination of athletic injury evaluation, management, and basic rehabilitation concepts.
- **304L. CARE AND PREVENTION OF ATHLETIC INJURIES II LAB 1 cr.** Prerequisites: PE 201 and 201L; corequisite: PE 304. Extension of PE 201L. Emphasis on wrapping and taping techniques used to prevent, care for, and treat athletic injuries. This is a laboratory course used to develop these skills.
- **310. METHODS, MATERIALS, AND RESOURCES IN PHYSICAL EDUCATION AND EXERCISE SCIENCE 3 cr.** Prerequisite: acceptance into Physical Education or Exercise Science major. Study of functional movement as it applies to motor and sport skills in everyday activities and athletics. Examination of methodologies, materials, and resources unique to teaching these skills in physical education and allied health settings. Emphasis on developing plans and objectives as well as organizational techniques for teaching grades 4 through 12, and for working in fitness and rehabilitation environments.
- **340. LIFESTYLE WELLNESS 3 cr.** Overview of the holistic nature of lifestyle wellness, the multiple factors that contribute to, or influence, wellness, prevalent themes and types of programs related to wellness, and the role of exercise science and allied health professionals in the wellness process. Examination of the wellness culture within our society and the factors which influence lifestyle wellness throughout the lifespan, such as fitness, aging, illness, disabilities, and injuries as well as a critical investigation of different types of opportunities available for development, learning, and maintenance of lifestyle wellness.

- **399. SPECIAL TOPICS 2-3 cr.** Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.
- **407. EXERCISE PHYSIOLOGY 3 cr.** Prerequisites: PE 206 and 206L, or BL 231 and BL 231L. Study of human physiology during exercise and as a function of physiological problems associated with physical stress. Emphasis on bioenergetics and neuromuscular concepts of exercise, as well as cardiorespiratory and environmental considerations in exercise.
- **408. ORGANIZATION AND ADMINISTRATION OF ATHLETICS, PHYSICAL EDUCATION, AND EXERCISE SCIENCE 3 cr.** Prerequisite: Acceptance into Physical Education and Exercise Science major. Administrative functions of planning and organizing programs in athletics, physical education, and exercise science. Additional emphasis on staffing, directing, and coordinating programs. Includes application in student's area of concentration.
- **409. KINESIOLOGY 3 cr.** Prerequisites: PE 206 and 206L, or BL 231 and BL 231L. Experience in movement, analysis of the physiological bases of muscular activities, and general effects on body functions.
- **411. PHYSICAL EDUCATION IN EARLY CHILDHOOD 3 cr.** Curriculum, procedures, methodology, instructional strategies, and physical activities that are developmentally appropriate—intellectually, physically, emotionally, and socially—for children from pre-kindergarten through the primary grades. Field experience.
- 420. DISABILITIES: LEARNING, MOVEMENT, AND PROGRAM DEVELOPMENT
- **3 cr.** Prerequisites: acceptance into Physical Education or Exercise Science major. Disabilities encountered in schools, physical education, recreation, athletics, and allied health programs. Emphasis on the etiology of the disabilities, appropriate learning, and therapy environments to enhance physical development and motor proficiency, current qualitative and quantitative research, and techniques for assessment, program development, and implementation. Field experience.
- **430. RESEARCH AND MEASUREMENTS IN EXERCISE SCIENCE 3 cr.** Prerequisite: acceptance into Physical Education or Exercise Science major. Statistics and research methodology used in exercise science and allied health. Emphasis on the understanding and use of essential statistical methods (descriptive and inferential) in research and in applied settings. Includes measures of central tendency, t-test, probability, hypothesis testing, ANOVA. Development of a research proposal is required.
- **432. MOTOR LEARNING 3 cr.** Prerequisite: acceptance into Physical Education or Exercise Science major. Study of human motor behavior as influenced by cognitive and physiological development, maturation, motivation, and learning. Emphasis on normal development as well as regressive development as a function of aging and/or disability.
- **433. THEORETICAL PRINCIPLES OF STRENGTH AND CONDITIONING 3 cr.** Prerequisites or corequisites: PE 407 and PE 409. Principles and concepts of body movement specific to joint biomechanics, and related issues and use of appropriate terminology, principles related to the selection and use of assessment techniques for cardiovascular efficiency and strength and conditioning. Principles which guide the development and implementation of strength and conditioning programs (pre-season, in-season, and off-season). Laboratory experiences included.

435. ETHICAL PROBLEMS IN ATHLETICS, PHYSICAL EDUCATION, AND EXERCISE SCIENCE 3 cr. Prerequisites: acceptance into Physical Education or Exercise Science major; senior standing. The nature of ethics through the study of ethical issues in athletics, physical education, and exercise science, such as the use of performance-enhancing drugs; fitness guidelines for youth sports; recruiting, professionalism, and other current topics.

440. INDEPENDENT STUDY 1-3 cr. Prerequisite: instructor's permission. Intensive study of problems and concerns in a selected area of health, physical education, or exercise science.

496. PRACTICUM 3 cr. Prerequisites: acceptance into Physical Education or Exercise Science major, junior or senior standing, and permission of instructor and coordinator. Supervised application of the principles of exercise science in an environment selected by the individual candidates, such as athletic training, cardiac rehabilitation, fitness, coaching in environments such as education, athletics, medicine, physical therapy, and business. A proposed plan must be approved by the coordinator of practicums and internships prior to enrollment. Final paper developed in conjunction with the practicum.

497. INTERNSHIP 3 cr. Prerequisites: acceptance into Physical Education or Exercise Science major, junior or senior standing, and permission of instructor and coordinator. Candidates select an internship assignment in line with their graduate school area of interest, e.g., athletic training, strength and conditioning, physical therapy, exercise physiology. A proposed plan must be approved by the coordinator of practicums and internships prior to enrollment. A final research paper must relate to the internship.

499. SPECIAL TOPICS 2-3 cr. Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.



Physics (PH) Engineering Physics (EP)

Professors: G. Lacueva (Chair), A. R. Day; Associate Professors: J. S. Dyck, N. K. Piracha; Assistant Professor: P. Tian

The Department of Physics plays a central role in the University's mission of educating students to live in an increasingly technological, highly complex society. The department provides a range of physics/engineering programs for its majors, support courses for other science majors, and courses that fulfill the science requirements of the University Core Curriculum for non-science majors. The department has modern, well-equipped undergraduate laboratories, and many of the courses have a laboratory component that emphasizes the central role of experiments in science.

Research plays an essential role in the education of students majoring in physics. Students have the opportunity of working under the guidance of a faculty member on campus, and the department encourages all students to spend at least one summer participating in a research program at a major research university or national laboratory.

Four major programs are offered. Three lead to a Bachelor of Science in physics, and one leads to a Bachelor of Arts. The Bachelor of Science programs are physics, engineering physics, and interdisciplinary physics. The physics major is an excellent preparation for a diverse range of careers. Many graduates have gone directly into the workforce in physics, engineering, business, and teaching. Others have continued their academic careers with graduate study in a variety of fields, including physics, engineering, computer science, law, and medicine.

B.S. Physics Major

The major adds to the physics core a selection of upper-division courses such as thermal physics, optics, condensed matter physics, or other engineering electives. This program provides a solid preparation for graduate study in physics, materials science, or medical physics.

B.S. Engineering Physics Major

This major adds to the physics core a selection of engineering physics courses. Typically, this program leads to employment in the fields of engineering development or applied physics, or to graduate study in related fields.

Major and Minor Requirements

B.S. in Physics Major. 53-55 credit hours. The physics core (see below) plus 14 credit hours of upper-division technical electives approved by the physics department (normally PH, EP, MT, or CS courses). The 14 hours of electives must include at least 6 hours of PH lecture credit and 2 hours of PH or EP lab credit.

Required Mathematics Support Courses. 12 hours: MT 135, 136, 233.

Required Chemistry Support Courses. 5 hours: CH 141 or 151H; 143 or 153.

B.S. in Engineering Physics Major. 53-55 credit hours: The physics core (see below) plus 14 credit hours of upper-division technical electives approved by the physics department (normally PH, EP, MT, or CS courses). The 14 hours of electives must include at least 6 hours of EP lecture credit and 2 hours of EP lab credit.

Required Mathematics Support Courses. 12 hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 hours: CH 141 or 151H; 143 or 153.

B.S. in Interdisciplinary Physics Major. 57-65 credit hours. The physics core (see below) plus interdisciplinary support courses from BL, CH, MT, CS, PS, or the Boler School of Business:

Either

An additional 24 credit hours of lower-division courses which must include 4 credit hours of laboratory courses.

Or

An additional 18 credit hours, at least 9 of which must be upper-division courses.

Required Mathematics Support Courses. 12 hours: MT 135, 136, 233.

Required Chemistry Support Courses. 5 hours: CH 141 or 151H; 143 or 153.

Note: For all B.S. programs, up to 6 hours of electives may be satisfied by courses in science or engineering offered at other colleges and universities participating in the Northeast Ohio Council on Higher Education Cross Registration Program (subject to approval by the physics department).

B.A. in Physics Major. 39-41 credit hours: The physics core (see below).

Required Mathematics Support Courses. 12 hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 hours: CH 141 or 151H; 143 or 153.

The Physics Core. 39-41 credit hours: PH 135, 135L, 136, 136L, 246, 247, 315, 315L, 347, 348(2), 365, 365L, 407 or 408, 445, 445L; EP 217, 260, 260L, 451, 451L.

Minors in Physics and Engineering Physics. 24 credit hours: PH 135, 135L, 136, 136L, 246; EP 217; and at least 8 hours of upper-division EP or PH electives.

Required Mathematics Support Courses. 12 hours: MT 135, 136, 233.

B.S. Interdisciplinary Physics Major

This major adds to the physics core a selection of courses from the departments of biology, chemistry, and mathematics and computer science, or from the Boler School of Business. This is the best choice for students who are interested in medical school. It is also the best choice for students interested in the five-year M.B.A. program of the Boler School of Business. In addition, this program can be arranged to prepare for environmental science, technical sales, or patent law.

B.A. Physics Major

This major is the physics core with no additional courses. It is the most flexible of all the physics majors and fits well with an environmental studies concentration, preparation for law, or business school.

Engineering Programs

Students interested in engineering have the following options:

- Participate in the binary (3-2) program with Case Western Reserve University (CWRU). Students attend John Carroll University for three years and then transfer to CWRU for two years; they receive both a B.S. from John Carroll University and a Bachelor of Science in Engineering from CWRU. The program is open to any student who completes the Prerequisite courses (in calculus, physics, chemistry, and computer science) and maintains an overall 3.0 GPA and a 3.0 GPA in science and mathematics courses.
- Participate in the 2-2 program with University of Detroit Mercy (UDM). Students complete a two-year pre-engineering program at John Carroll University and then transfer to UDM for two years of engineering. They receive a Bachelor of Engineering from UDM.
- 3. Complete a B.S. in engineering physics at John Carroll University and then pursue graduate work in engineering. Students who choose this option may start taking engineering courses while at John Carroll through the Northeast Ohio Commission on Higher Education Cross-Registration Program.

For further details concerning engineering programs, see the section of this *Bulletin* entitled "Preparation for Graduate and Professional Study."

Teaching Licensure

Students interested in majoring in physics in preparation for teaching physics at the secondary level should consult both the Department of Physics and the Department of Education and Allied Studies at the earliest opportunity. The B.A. in physics provides a comprehensive background in physics while allowing some flexibility for completing the licensure requirements of the State of Ohio.

PHYSICS (PH)

- **100. PHYSICS THROUGH CREATIVE PRESENTATION 3 cr.** For students not majoring in the physical sciences. Astronomy and physics topics covered using a different pedagogy. Half of the semester involves role-playing and recreating the trial of Galileo; the other half covers student-selected topics in physics. Various texts and writing formats are used. A final project to demonstrate concept understanding will be published on You Tube.
- **107. INTRODUCTORY PHYSICS BY EXPERIMENT I 4 cr.** Corequisite: PH 107L. For students who are not majoring in the physical sciences, especially students majoring in education. An inquiry-based introduction to fundamental concepts of physics. Meets for 5 hours per week in a laboratory setting.
- **107L. INTRODUCTORY PHYSICS BY EXPERIMENT LABORATORY I 0 cr.** Corequisite: PH 107. This laboratory is an integral part of PH 107.
- 113. INTRODUCTORY ASTRONOMY 3 cr. Corequisite: PH 113L. For students who are not majoring in the physical sciences. Historical development of the understanding of the universe; tools and techniques. The sun as a star; stellar origin and evolution; galaxies and the universe; the solar system as known through space exploration. Slides, films, and observing with telescopes.
- **113L. INTRODUCTORY ASTRONOMY LABORATORY 1 cr.** Corequisite: PH 113. Experiments designed to develop an appreciation of the scientific method and the methodology used to acquire data. Software developed in the CLEA Project provides experiments involving the measurement of properties of stars and the study of planetary motion.
- **115. ENVIRONMENTAL EARTH SCIENCE 3 cr.** Corequisite: PH 115L. Interdisciplinary approach to the study of our planet, from its origins to current challenges. Formation of the earth, matter and minerals, the rock cycle, plate tectonics, earthquakes, volcanism, water and air movement, and climate change.
- **115L. ENVIRONMENTAL EARTH SCIENCE LABORATORY 1 cr.** Corequisite: PH 115. Experiments and field trips designed to complement PH 115. Two hours of laboratory per week.
- **125. GENERAL PHYSICS I 3 cr.** Corequisite: PH 125L. Suitable for biology, premedical, and predental majors. Topics from the areas of mechanics, vibration and sound, wave motion, solids and fluids, and thermodynamics. High school physics or a conceptual physics course such as PH 107 is strongly recommended as a Prerequisite. Students who have not had high school physics should consult with the department chair prior to registering.
- **125L. GENERAL PHYSICS LABORATORY I 1 cr. each.** Prerequisite or corequisite: PH 125. Experiments designed to complement PH 125. Two hours of laboratory per week.
- **126. GENERAL PHYSICS II 3 cr.** Prerequisite: PH 125; corequisite: 126L. Suitable for biology, premedical, and predental majors. Topics from the areas of optics, electricity, magnetism, and modern physics.
- **126L. GENERAL PHYSICS LABORATORY II 1 cr. each.** Prerequisite or corequisite: PH 126. Experiments designed to complement PH 126. Two hours of laboratory per week.
- **135-136. PHYSICS I, II 4 cr. each.** Prerequisites or corequisites: MT 135, 136; PH 135L-136L. For science, mathematics, and pre-engineering majors. 135: mechanics and thermal physics; 136: electricity, magnetism, vibrations, and waves. Emphasis on the foundations of physics and applications to the physical sciences and engineering. High school physics or a conceptual

- physics course such as PH 107 is strongly recommended as a Prerequisite. Students who have not had high school physics should consult with the department chair prior to registering.
- **135L-136L. PHYSICS WORKSHOPS I, II 1 cr. each.** Corequisites: PH 135-136. Experiments and simulations designed to aid assimilation of selected topics treated in PH 135-136. Two hours of laboratory per week.
- **197. SPECIAL TOPICS IN PHYSICS 1-3 cr.** Corequisite: PH 197L. For non-science majors. Topics are published in the schedule of classes for the applicable term.
- **197L. SPECIAL TOPICS IN PHYSICS LABORATORY 1 cr.** Corequisite: appropriate section of PH 197. Experiments designed to complement the material covered in PH 197. For non-science majors.
- **206. EARTH SYSTEMS SCIENCE 3 cr.** Prerequisite: PH 115. A study of earth's systems, including soil, water, and the energy flow between them. Focus on biogeochemical cycles and how they relate to resource use and management. Two Saturday field trips will be required.
- **246. MODERN PHYSICS 3 cr.** Prerequisite: PH 136. Basic physical theories governing elementary particles, nuclei, atoms, molecules, and their interactions; relativity, quantum theory.
- **247. MODERN PHYSICS LABORATORY 1 cr.** Prerequisite: PH 246. Experiments from modern physics. Measuring fundamental constants. Error propagation and analysis. Two hours of laboratory per week.
- **315.** CLASSICAL MECHANICS 3 cr. Prerequisites: PH 136, EP 217; corequisite: PH 315L. Kinematics, Newtonian mechanics, oscillatory motion, central-force motion, rotating reference frames, and dynamics of rigid bodies. Mathematical concepts that arise in mechanics, including vector analysis.
- **315L. CLASSICAL MECHANICS WORKSHOP 1 cr.** Corequisite: PH 315. Two hours of workshop per week supporting PH 315. Includes mathematical, computer, and experimental exercises.
- **325. THERMAL PHYSICS 3 cr.** Prerequisites: PH 136, EP 217. Laws of thermodynamics, entropy, phase transitions, classical and quantum statistical mechanics. Application to ideal and non-ideal systems.
- **347. ADVANCED LABORATORY 2 cr.** Prerequisite: PH 247. Four hours of laboratory per week. Students will perform a range of experiments in contemporary physics. The main focus will be on advanced laboratory techniques using research-grade equipment and on data analysis and presentation.
- **348.** PHYSICS SEMINAR 0 cr. All physics majors are required to complete two semesters of PH 348. Students must attend the monthly physics colloquium, where speakers from a variety of physics and engineering fields present their research. Graded SA/FA.
- **365. ELECTRICITY AND MAGNETISM 3 cr.** Prerequisites: PH 136, EP 217; corequisite: PH 365L. Classical theory of electricity and magnetism. Electrostatics, dielectrics, magnetic fields, electromagnetic induction, Maxwell's equations, and radiation. Mathematical concepts that arise in E & M, including boundary value problems.
- **365L. ELECTRICITY AND MAGNETISM WORKSHOP 1 cr.** Corequisite: PH 365. Two hours of workshop per week supporting PH 365. Includes mathematical, computer, and experimental exercises.

- **395. INDEPENDENT STUDY 1-3 cr.** Prerequisites: junior standing and acceptance of the study topic by a member of the department who agrees to monitor the study.
- **396. INDEPENDENT LABORATORY STUDY 1-3 cr.** Prerequisites: junior standing and acceptance of the study topic by a member of the department who agrees to monitor the study.
- **397. SPECIAL TOPICS 1-3 cr.** Prerequisite: junior standing. Topics may be published in the schedule of classes for the applicable term.
- **407**, **408**. **SENIOR RESEARCH OR DESIGN PROJECT 2 cr. each.** Prerequisite: senior standing. Four hours of laboratory per week. Participation in an independent research or design project under the supervision of a faculty member.
- **445. QUANTUM PHYSICS 3 cr.** Prerequisites: PH 246, EP 217; corequisite: PH 445L. Origin of quantum theory, Schrödinger's wave mechanics, one-dimensional systems, operators, eigenfunctions and eigenvalues, harmonic oscillator, angular momentum, the hydrogen atom. Perturbation theory and application to atoms and molecules. Mathematical concepts that arise in quantum mechanics, including operators, eigenvectors and eigenvalues, and boundary value problems.
- **445L. QUANTUM PHYSICS WORKSHOP 1 cr.** Corequisite: PH 445. Two hours of workshop per week supporting PH 445. Includes mathematical, computer, and experimental exercises.
- **485. CONDENSED MATTER PHYSICS 3 cr.** Prerequisites: PH 246, EP 217. Atomic structure of crystals, electronic structure of metals, insulators, and semiconductors; electron transport; optical properties.
- **495. INDEPENDENT STUDY 1-3 cr.** Prerequisites: senior standing and acceptance of the study topic by a member of the department who agrees to monitor the study.
- **496. INDEPENDENT LABORATORY STUDY 1-3 cr.** Prerequisites: senior standing, permission of the department chair, and acceptance of the study topic by a member of the department who agrees to monitor the project.
- **497. SPECIAL TOPICS 1-3 cr.** Prerequisite: senior standing. Topics may be published in the schedule of classes for the applicable term.

ENGINEERING PHYSICS (EP)

- **217.** MATHEMATICAL METHODS OF PHYSICS AND ENGINEERING 3 cr. Prerequisite: MT 136. Complex numbers, complex exponential, logarithmic, and trigonometric functions. Introduction to MATLAB® (or other appropriate mathematical software). First-and second-order differential equations, including use of Laplace transformation; Fourier series; matrices and determinants; systems of linear equations.
- **260. ELECTRONICS 3 cr.** Prerequisites: PH 136, MT 136; corequisite: EP 260L. Topics include DC/AC circuits and their analysis and basic semiconductor devices and their application.
- **260L. ELECTRONICS LABORATORY 1 cr.** Corequisite: EP 260. Two hours of laboratory per week. Familiarization with oscilloscopes and other test instruments. D.C. and A.C. circuit measurements. Experiments with diode and transistor circuits.
- **451. NUMERICAL PHYSICS 3 cr.** Prerequisite: EP 217; corequisite: EP 451L. Computational methods for physics and engineering using MATLAB®. Topics include curve fitting, solution of systems of equations, solution of ordinary and partial differential equations.

- **451L. NUMERICAL PHYSICS WORKSHOP 1 cr.** Corequisite: EP 451. Two hours of workshop per week supporting PH 451. Includes mathematical and computer exercises.
- **454. OPTICS 3 cr.** Prerequisite: EP 217; corequisite: EP 454L. Geometric and physical optics, lasers, fiber optics, and optical instruments.
- **454L. OPTICS LABORATORY 1 cr.** Corequisite: EP 454. Two hours of laboratory per week. Experiments in optics including lenses and mirrors, polarization, diffraction, and lasers.
- **467. SIGNALS AND SYSTEMS 3 cr.** Prerequisites: EP 217; EP 260; corequisite: EP 467L. Methods of dealing with discrete-time and continuous-time signals in linear systems, in both the time domain and the frequency domain. Fourier analysis applied to engineering problems.
- **467L. SIGNALS AND SYSTEMS LABORATORY 1 cr.** Corequisite: EP 467. Experiments complementing EP 467. Practical experience with discrete-time and continuous-time signals. Simulation of discrete-time and continuous-time systems using MATLAB®. Two hours of laboratory per week.
- **475. ELECTRONIC CIRCUITS 3 cr.** Prerequisites: EP 217; EP 260; corequisite: EP 475L. Analysis and design of circuits using discrete or special electronic devices. Transistors, FETs, and thyristors; power supply circuits; optoelectronic devices.
- **475L. ELECTRONIC CIRCUITS LABORATORY 1 cr.** Corequisite: EP 475. Experiments complementing EP 475. Practical experience in designing, breadboarding, and testing circuits using discrete solid-state devices. Two hours of laboratory per week.
- **478. DIGITAL DESIGN 3 cr.** Prerequisite: MT 136; corequisite: EP 478L. Boolean algebra, combinational and sequential logic design, arithmetic and logic circuits. Hardware description languages and design using complex programmable logic devices. Offered every other year.
- **478L. DIGITAL DESIGN LABORATORY 1 cr.** Corequisite: EP 478. Two hours of laboratory per week. Practical experience in designing, implementing, and testing fairly complex digital circuits using Xilinx® software and prototyping circuit boards.
- **479. FEEDBACK SYSTEMS 3 cr.** Prerequisites: EP 217, EP 260; corequisite: EP 479L. Discussion of feedback systems and design and analysis of circuits using integrated circuit operational amplifiers and other analog circuits. Characteristics of operational amplifiers and their limitations. Frequency and transient response using Laplace techniques, pole-zero diagrams, and Bode plots; active filters.
- **479L. FEEDBACK SYSTEMS LABORATORY 1 cr.** Corequisite: EP 479. Experiments complementing EP 479. Practical experience in designing, breadboarding, and testing circuits employing operational amplifiers and other analog circuits. Simulation of such circuits using PSpice® and MATLAB® software. Two hours of laboratory per week.
- **495. INDEPENDENT STUDY 1-3 cr.** Prerequisites: senior standing, permission of the department chair, and acceptance of the study topic by a member of the department who agrees to monitor the study.
- **496. INDEPENDENT LABORATORY STUDY 1-3 cr.** Prerequisites: senior standing, permission of the department chair, and acceptance of the study topic by a member of the department who agrees to monitor the project.
- **497. SPECIAL TOPICS 1-3 cr.** Prerequisite: senior standing. Topics may be published in the schedule of classes for the applicable term.

Political Science (PO)

Associate Professors: L. L. Bowen (Associate Academic Vice President), A. Sobisch, P. A. Mason, E. A. Stiles, M. J. Peden; Assistant Professors: D. R. Hahn (Chair), D. N. Birch, J. J. Ziemke, C. D. Swearingen

Firmly rooted in the tradition of the liberal arts and sciences, political science focuses its study on the political aspects of the social world. The Department of Political Science offers courses on political institution, law, public policy, the political economy of development, foreign area studies, and political theory. The goals of the department are: (1) to promote student learning about politics and political science; (2) to improve basic intellectual skills—analytical reasoning, critical thinking, writing, oral communication, and problem solving; (3) to promote awareness, interest, concern, and involvement in community affairs at all levels; and (4) to provide a foundation for graduate studies (in political science and related fields) and careers, particularly in government, politics, education, political journalism, law, and the private sector (domestic and international).

The major includes seven core courses and six elective courses (with no more than four, including PO 200, at the 200 level and at least one at the 400 level). The seven core courses are: United States Politics (PO 101), Comparative Politics (PO 102), International Relations (PO 103), Political Thought (PO 104), Introduction to Methods (PO 200), Political Science Research Methods (PO 300), and Political Science Research Methods Lab (PO 300L). Students are strongly encouraged to take PO 300 and the Corequisite PO 300L in their junior year. The six elective courses may be concentrated in one area to complete a track, or distributed across several areas. Political science majors are required to take the Major Field Achievement Test during the second semester of their senior year. The test is administered by the political science department. Before taking an upper-level course in a given area (such as United States Politics), the department recommends (and in certain courses it is required) that students first take the 100-level foundational course corresponding to that area of study. In addition, students must take PO 200 before taking PO 300.

The Department of Political Science sponsors the Mu Upsilon chapter of Pi Sigma Alpha, the national political science honorary society. Membership is open to students whose academic record reflects outstanding achievement and demonstrated interest in the study of political science.

Major and Minor Requirements

(The minors in Political Science are available only to non-majors.)

Major in Political Science: 37 credit hours. The political science core: PO 101, 102, 103, 104, 200, 300, 300L; 18 hours of elective courses (200, 300, and 400 level) concentrated in one area or distributed across several areas; including PO 200, no more than 12 hours can be at the 200 level; one of the elective courses must be a 400-level course. Team-taught courses will count toward the major at the chair's discretion.

Minor in United States Politics: 18 hours. PO 101 and 15 hours elected from among PO 203, 204, 207, 241, 295, 298, 301, 302, 303, 305, 309, 310, 312, 314, 315, 316, 317, 318, 319, 340, 343, 344, 361, 363, 395, 417, 440, 441, with no more than 6 hours at the 200 level.

Minor in Foreign Affairs: 18 hours. PO 102 and 103 and 12 hours elected from among PO 220, 241, 254, 256, 296, 297, 311, 320, 321, 326, 328, 330, 331, 334, 335, 337, 344, 345, 346, 351, 355, 356, 396, 397, 445, 458, with no more than 6 hours at the 200 level.

Minor in General Political Science: 18 hours. Two courses at the 100 level and four additional courses (which can include AR 291), with no more than 6 hours at the 200 level.

NOTE: With department chair permission, PO 398 can be used to fulfill minor requirements in U.S. Politics *or* Foreign Affairs depending on the specific emphasis of a particular PO 398 offering. All special topics courses count toward the minor in General Political Science.



Tracks in Political Science

Students majoring in political science may also complete a track within the major as a way of developing expertise through focus in a particular area.

Law and Society: 18 hours. PO 314 or 315, 317, and 417 or 440 (or equivalent course by petition); and 9 hours elected from among PO 207, 305, 310, 314, 315, 340, 395 (by petition), 417, 440, 441, 499 (by petition); PL 289, 320; MN 461.

This track is for those majors interested in the study of law and its relationship to society and social theory. It is also useful for those students interested in pursuing a career in law.

Global and Foreign Area Studies: 18 hours. PO 256, 335, 336 and 9 hours elected from among PO 241, 254, 320, 321, 326, 328, 330, 331, 332, 333, 334, 345, 346, 351, 355, 356, 396, 397, 445, 457, 458, 499 on a topic related to IR or Comparative.

This track is for those majors who wish to prepare themselves for advanced study in comparative or IR, or for a government or private sector career dealing with foreign affairs.

Methods and Spatial Analysis: 12 hours. In addition to the three methods courses required of all PO majors, this track requires MT 122, PO 203, 303, 335 (or similar course by petition).

This track is for those majors who wish to develop skills in data analysis with particular emphasis on the expanding field of spatial analysis.

- **101. UNITED STATES POLITICS 3 cr.** The U.S. political system in theory and practice; political processes, institutions, individual and group behavior; the relationship of the political system to the organizational and economic environments.
- **102. COMPARATIVE POLITICS 3 cr.** Introduction to the study of political behavior and institutions through a comparative perspective.
- 103. INTERNATIONAL RELATIONS 3 cr. Origin, nature, and development of the modern state system. International conflict and its management by political and legal means. Concepts include sovereignty, nationalism, national power and security, balance of power. Contemporary international issues.
- **104. POLITICAL THOUGHT 3 cr.** Examination of the assumptions, methods, and substantive positions of selected political theorists as a basis of analyzing political life. Themes include sovereignty, power, equality, slavery, peace, representation, identity, force, and violence.
- **200. INTRODUCTION TO METHODS 3 cr.** Introduces various approaches used in the social sciences to understand the socio-political world and provide causal explanation for its discernible patterns and features. Includes the basics of forming a research hypothesis and a review of the literature relevant to a research project. Required of all political science majors and a Prerequisite for PO 300 and PO 300L.

- **203. GIS I 3 cr.** Introduction to the theory and practice of geographic information science through computer-based processing tools, specifically geographic information systems (GIS). Students will study fundamentals of GIS components, spatial data models, integration of coordinate systems, digital data sources, spatial database functions, spatial analysis, thematic mapping, and data quality. Applications include political analysis, land use planning, public health mapping, environmental management, and demographic mapping.
- **204. INTRODUCTION TO POLICY STUDIES 3 cr.** Introduction to the public policy process; institutions that structure and implement policy responses, models of decision-making, analytical and evaluative methodologies, epistemological approaches, normative concerns. Policy areas investigated to illustrate both the actual and symbolic impact of the policy process within diverse political settings.
- **207. POLITICS OF EQUALITY 3 cr.** Defining the concept of equality within its legal, political, social, and economic frameworks. Includes examination of the categories of race, sex, and sexual orientation.
- **220. EUROPEAN UNION SIMULATION 3 cr.** Simulation course that models the policy-making process within the European Union. Includes a three-day conference in November in Washington, D.C. Each student will take on the role of a political decision-maker from an EU member. Offered fall term of even-numbered years.
- **241. HISTORY, CULTURE, AND POLITICS 3 cr.** Explores ways that relationships among religion, culture, and politics are expressed within nations and across national borders. Incorporates comparative perspectives and field opportunities.
- **254.** LATIN AMERICAN POLITICS **3 cr.** Broad historical and regional overview of the political, economic, and social issues that have shaped today's Latin American politics. Focus on various countries suited to student interest and current events.
- **256. GLOBALIZATION AND ECONOMIC DEVELOPMENT 3 cr.** Introduction to the major political and economic forces of historical development from the explosive encounter of Europe with the Americas at the initiation of the "post-Colombian exchange" to the collapse of time and distance with the introduction of digital technology and the Internet.
- **295. SPECIAL TOPICS IN UNITED STATES POLITICS 3 cr.** Course title will be listed in the semester course schedule. Special-topics courses at the 200 level are designed for first- and second-year students or for prospective majors.
- **296. SPECIAL TOPICS IN COMPARATIVE POLITICS 3 cr.** Course title will be listed in the semester course schedule. Special-topics courses at the 200 level are designed for first- and second-year students or for prospective majors.
- **297. SPECIAL TOPICS IN INTERNATIONAL RELATIONS 3 cr.** Course title will be listed in the semester course schedule. Special-topics courses at the 200 level are designed for first- and second-year students or for prospective majors.
- **298. SPECIAL TOPICS IN POLITICAL THOUGHT 3 cr.** Course title will be listed in the semester course schedule. Special-topics courses at the 200 level are designed for first- and second-year students or for prospective majors.

Advanced Courses

300. POLITICAL SCIENCE RESEARCH METHODS 3 cr. Prerequisite: PO 200; corequisite: PO 300L. Examines principles of political (and social) science research. The key

- tools of quantitative social science research: variables, hypotheses, measurement, research designs, sampling, data collection, and data analysis. Should be taken by the end of the junior year.
- 300L. POLITICAL SCIENCE RESEARCH METHODS LAB 1 cr. Corequisite: PO 300.
- **301.** U.S. CONGRESS 3 cr. Committees, leaders, party organizations, and floor proceedings in Congress; elections, legislative reform, lobbyists, and legislative behavior.
- **302. PUBLIC ADMINISTRATION 3 cr.** Principles and practices of public administration; theories of bureaucracy with an emphasis on the U.S. experience; proposals for reconciling effective administration of public policy with democratic norms.
- **303. GIS II 3 cr.** Prerequisite: GIS I. Addresses spatial applications and modeling in GIS. Students will gain experience in the use of buffering, overlay, spatial operators, Boolean search operators, programming, surface modeling, geocoding, spatial modeling, and network and routing applications.
- **305. SEX, GENDER, AND POLITICS 3 cr.** Examination of theories of gender and their implication for public policies affecting the political, economic, and social status of women and men in the U.S.
- **309. BUDGET AND PUBLIC POLICY 3 cr.** Analysis of policy issues related to the federal budget and social programs, e.g., Social Security, welfare, and healthcare.
- **310.** THE POLITICS OF RACE 3 cr. Analysis of race as a social, political, and legal construct; social and political implications of these constructions. Social movements organized around the politics of race; responses of political systems to issues of racial inequality.
- **311. U.S. FOREIGN POLICY 3 cr.** Sources, conduct, and effects of U.S. foreign policy from the standpoint of various analytical frameworks. The historical dimension of the course includes the expansion of the "western frontier" in the 19th century to the "global war on terror" and use of "smart power" in the 21st century.
- **312. URBAN POLITICS 3 cr.** Comparative study of the political systems of urban areas with emphasis on the forms of urban government, metropolitan government, political machines, elections, interest groups, local executives, city councils, and bureaucracies.
- **314. CONSTITUTIONAL POLITICS 3 cr.** Investigation of Supreme Court interpretations of the Constitution. Case-study approach to the politics of judicial review, intergovernmental relations, and the commerce, taxing, treaty, and war powers.
- **315. CIVIL RIGHTS AND LIBERTIES 3 cr.** Conflict in American society between majority rule and minority rights. Case-study approach to freedom of speech, press, religion, and association, the protections of due process, the rights of the accused, the equal protection of the laws, voting rights, and privacy.
- **316. SOCIAL MOVEMENTS 3 cr.** Focusing primarily on the U.S., how and why social movements form in a democratic society, the use of extra-institutional political tactics, the ways they maintain themselves against strenuous opposition, and the dynamics of movement decline.
- **317. JUDICIAL PROCESS 3 cr.** Analysis of the role of the courts in the political process and the impact of law on society: structure of federal and state judiciaries, judicial selection, models of judicial decision making, and the implementation of judicial decisions.
- **318. INTEREST GROUPS AND POLITICAL PARTIES 3 cr.** How interest groups affect the American political process. Analysis of interest-group behavior in electoral politics and in the policy process; theory and structure of groups; the rise of political action committees (PACs) and single-issue voters; the functions and activities of the political parties.

- **319. U.S. ELECTIONS 3 cr.** Analysis of candidate recruitment, nomination processes, campaign strategies, campaign finance, voting behavior, and reform proposals in congressional and presidential elections. (Offered every two years on the election cycle.)
- **320.** CHRISTIAN DEMOCRACY IN EUROPE 3 cr. One of the most important contemporary political movements in Europe. Development of Catholic political and social thought from the French Revolution to the present; the role played by Christian Democratic parties in eight countries today.
- **321.** THE POLITICS OF THE EUROPEAN UNION 3 cr. Prerequisite: PO 102. A more advanced course on the European Union than PO 220, going well beyond its history, institutions, and processes. Analyzes in detail some key issues and controversies within the EU concerning its structure of governance, its purpose, and its future. Includes participation in the EU Simulation in Washington, D.C., in November.
- **324. CRISIS MAPPING, NEW MEDIA AND POLITICS 3 cr.** How to collect, visualize, analyze, and understand crowd-sourced event data; also, the ethical, political, and privacy implications of this approach, as well as a variety of applications in this domain.
- **326. COMPARATIVE POLITICS OF THE MIDDLE EAST 3 cr.** Studies the diverse cultures, religious movements, and political systems of the countries of the Middle East with special emphasis on the Arab Spring that has swept the area recently.
- **328. THE MIDDLE EAST IN FILM AND MEDIA 3 cr.** Explores the Middle East through film and media. Focuses on discussions of the diversity of religious, political, and social trends in the area along with an emphasis on bias and stereotypes portrayed in both audio-visuals and readings.
- **330. INTERNATIONAL POLITICS OF THE MIDDLE EAST 3 cr.** The international issues and conflicts of the Middle East studied within the context of the history of the area and theories of international relations.
- **331.** U.S. FOREIGN POLICY IN THE MIDDLE EAST 3 cr. Overview of U.S. policy in the Middle East since the end of World War II. Examines U.S. policy through the interplay of factors such as national interest, the Cold War, and the new world order.
- **332. AFRICAN POLITICS 3 cr.** Historical perspective on topics of colonialism, independence movements, neopatrimonialism, nationalism, democratization, conflict, genocide, women's movements, civil society, and HIV/AIDS, with an emphasis on variation across space and time.
- **333. INTERNATIONAL CONFLICT AND SECURITY 3 cr.** Prerequisite: PO 103. Sources of insecurity for states and individuals, including genocide, insurgency, civil wars, interstate conflicts, and other global threats. Discusses the psychological, social, and material impact of insecurity and war on combatants and their families.
- **334. INTERNATIONAL INSTITUTIONS, LAW, AND HUMAN RIGHTS 3 cr.** Prerequisite: PO 103. Focus on international organizations such as the International Criminal Court that have emerged to help the international community cope with egregious abusers of human rights. Analysis of their structure, theory, procedure, operation, and problems, as well as their role in maintaining peace and security among member states.
- **335. POLITICAL GEOGRAPHY 3 cr.** Analysis of the spatial aspects of power, including an examination of fundamental concepts such as territory and scale, as well as the various geopolitical frames that have been imposed on the world.

- **336. INTERNATIONAL POLITICAL ECONOMY 3 cr.** Prerequisite: PO 103. Trends in the global economy, including institutions designed to facilitate rules between world states; processes shaping globalization; and questions related to development and poverty, debt, and fair trade.
- **337. COMPARATIVE HEALTH POLICY 3 cr.** Prerequisite: PO 102. Introduction to the basic concepts, issues, and dilemmas of public health and healthcare policy. Provides students with the vocabulary and tools of comparative public health/healthcare policy analysis by examining in detail the promises and problems of various healthcare systems worldwide.
- **340.** LAW AND FILM 3 cr. Explores the interplay between law and popular culture as represented by film. Also considers important themes in the study of law and judicial politics, including the relationship between law and justice, the practice of law, and the role of courts and trials in a political system.
- **341. ANCIENT AND MEDIEVAL POLITICAL THOUGHT 3 cr.** The foundations of Western political thought. Particular emphases may vary in different semesters, but will include competing and changing conceptions of human nature and community, ideas about law, the emergence of the secular and the "people" in Europe, and basics of medieval Islamic thinking about politics.
- **342. MODERN POLITICAL THOUGHT 3 cr.** Impact of science on the study of politics, rise of the "individual" and social contract theory; the relationship between Enlightenment and revolutionary thought; critiques of Enlightenment and liberalism; examination of European biases and their meanings for political thought.
- **343. CONTEMPORARY POLITICAL THOUGHT 3 cr.** The relationship between morality and politics, centered on the "redistribution versus recognition" debate in contemporary political thought. Impact of Rawls and the social contract tradition; feminist responses to the definition of the political; the meaning of the Holocaust to Enlightenment-influenced political thought; application of post-structural analyses.
- **344. ISSUES AND PROBLEMS IN DEMOCRATIC THOUGHT 3 cr.** Historical, comparative, and theoretical perspectives on topics related to democratic thought and practice, including human rights, civil rights, majoritarianism, representation, nationalism, and collective violence.
- **345. JAPANESE POLITICS AND POLITICAL CULTURE 3 cr.** Explores foundational issues in political science through consideration of Japanese political culture, politics, and government, as well as Japan's situation in a changing Asia.
- **346.** CHINESE POLITICS AND POLITICAL CULTURE 3 cr. Considers Chinese politics and government—both regional and national—as they evolve in a rapidly changing society, as well as China's "peaceful rise."
- **351. BERLIN SEMINAR 3 cr.** Intensive introduction to the city of Berlin, Germany, focusing on Berlin as capital of empire, republic, and the Nazi regime; as divided city during the Cold War; and as center of the reunified Federal Republic. Includes a ten-day study tour of Berlin during spring break preceded by a series of seminar meetings in preparation for the trip. Offered spring semester of odd-numbered years. Requires additional fee for travel.
- **355.** CATHOLICISM, IDENTITY, AND DEVELOPMENT IN LATIN AMERICA 3 cr. Examines various identities including national, religious, indigenous, "ladino," and others as groups have mobilized in response to political and economic change. Includes a historical overview of Latin America and gives particular emphasis to the interactions of Catholicism with other political traditions important in Latin American political development.

- 356. POLITICAL TRANSFORMATION: CASE STUDIES FROM LATIN AMERICA
- **3 cr.** An intensive examination and comparison of recent political and economic developments in major countries or regions of Latin America, e.g., Mexico, Brazil, Chile, Venezuela, the Andes, or Central America.
- **361. ENVIRONMENTAL POLITICS AND POLICY 3 cr.** Analysis of the impact of public policy on environmental quality and natural resources; ecology; relationship between U.S. environmental policy and global environmental issues; environmental ethics.
- **363. ENVIRONMENTAL LAW 3 cr.** Investigation of the role of law in protecting the environment and managing natural resources. Analysis of the nature of law, courts, administrative procedure, regulatory agencies, environmentalism, ecology, law and policy.
- **390. INTERNSHIP 1-6 cr.** Internship in government and political organizations. Internship prerequisites to be arranged with intern advisor. (Only 3 credits may count toward political science major or minor.)
- **395. SPECIAL TOPICS IN UNITED STATES POLITICS 3 cr.** Topic listed in semester schedule. Students may register for more than one 395 course on advice of academic advisor.
- **396. SPECIAL TOPICS IN COMPARATIVE POLITICS 3 cr.** Topic listed in semester schedule. Students may register for more than one 396 course on advice of academic advisor.
- **397. SPECIAL TOPICS IN INTERNATIONAL RELATIONS 3 cr.** Topic listed in semester schedule. Students may register for more than one 397 course on advice of academic advisor.
- **398. SPECIAL TOPICS IN POLITICAL THOUGHT 3 cr.** Topic listed in semester schedule. Students may register for more than one 398 course on advice of academic advisor.
- **399. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of chair. Directed reading or individual research.
- **401. SENIOR THESIS 3 cr.** Prerequisites: PO 300/300L and permission of instructor. Research of a topic in political science. Reviewing past research, developing a research plan, carrying out the research plan, and writing the thesis.
- **410. AMERICAN PRESIDENCY 3 cr.** Institutions, personalities, and political processes centered in the presidency; implications of the shifting balance of powers between the presidency and the other federal branches; analysis of media and public expectations in light of effective leadership and public accountability.
- **417. THE U.S. SUPREME COURT 3 cr.** Prerequisite: PO 314 or 315 or 317 or permission of instructor. History and role of the U.S. Supreme Court in U.S. politics. Special attention as to how and why the Court renders its decisions, how it determines its docket and case load, and the impact of its decisions. Includes significant independent research component.
- **440. JURISPRUDENCE 3 cr.** Nature of law through the prism of two principal concerns in jurisprudence—the separation of law and morality, and judicial discretion. Jurisprudential concepts such as legal validity, rules of law, principles, rights, moral and legal obligation, legal norms, ontology in natural law, natural law reconsidered, positive law, and realism.
- **441. CONSTITUTIONAL THEORY 3 cr.** Study of the relationship between constitutional law and political theory. An analysis of the various modes of constitutional interpretation and landmark Supreme Court cases will lead to the identification of fundamental concepts and principles of political theory that underlie the evolution of constitutional doctrine. This will help students understand the ongoing theoretical debate about the role of constitutional interpretation in American democracy.

- **445. NATIONALISM AND CITIZENSHIP 3 cr.** The two dominant ways of interpreting political identity today, with both a theoretical and empirical component. Relationship between ascriptive identity and democracy, meaning of patriotism, impact of colonialism and racethinking, and examination of possibilities for shared political life beyond the nation-state.
- **446. MARXIST THOUGHT 3 cr.** The varieties of Marxism, including Marx, Lenin, Rosa Luxemburg, and Antonio Gramsci. Significant emphasis on leadership and party politics, hegemony, imperialism, culture, ideology, and the role of gender and race analysis in Marxist thought. Involves significant reading and writing.
- **457. SEMINAR IN COMPARATIVE POLITICAL THOUGHT 3 cr.** Compares contemporary Confucian, Islamic, and varieties of Western political thinking on contemporary political issues. Thematic focus varies by semester.
- **458. TOPICS IN POLITICAL DEVELOPMENT 3 cr.** Prerequisite: PO 102 or permission of instructor. Uses a different theme each semester it is offered. Examines topics from around the globe related to political transformation and economic development.
- **464. UTOPIAN THOUGHT 3 cr.** Role of utopian thought in the development and evolution of Western political theory. Readings on political theory and literary utopias. Application of utopian thought to contemporary issues, e.g., destruction of natural environment, political and social inequality, globalization and community, science and technology, and moral relativism.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of chair. Senior-and/or graduate-level directed reading or independent research.
- 499. SEMINAR 3 cr. Courses on a variety of topics taught in a seminar format.



Psychology (PS)

Professors: H. M. Murphy, T. R. Evans, E. V. Swenson, D. W. Rainey, B. A. Martin; Associate Professors: J. H. Yost, D. D. Ben-Porath, A. A. Imam; Assistant Professors: S. D. Young (Chair), T. Masterson, A. C. Jones

Psychology is the scientific study of all aspects of behavior and mental processes. The concepts and methods of science are used in the description, explanation, prediction, and modification of behavior. Psychology is a broad discipline with ties to both the social and natural sciences. It provides a base for a variety of academic and professional fields, including psychological research, counseling, clinical psychology, social work, business and industry, medicine, human resources, and law. In addition, an interdisciplinary concentration in neuroscience is coordinated through the Department of Psychology.

The Department of Psychology prepares students with knowledge in the core areas of psychology, critical thinking skills, and the ability to apply the scientific method as preparation for graduate study, work, or service.

Major and Minor Requirements

Major in Psychology: 37 credit hours. PS 101, 301/301L; Group A: PS 318/318L or 326; Group B: one course chosen from PS 241, 261, 262; Group C: one course chosen from PS 351, 435, 455, 457; Group D: one course chosen from PS 332/332L, 380/380L, 386. The remaining 18 hours are PS electives at the 200 level or above

PS 101 is the only 100-level course that may be counted in the major.

Students must have completed PS 101 and hold a minimum overall 2.5 GPA in order to declare psychology as a major.

At least seven courses must be at the 300-400 level.

No more than 6 hours of credit for courses at or above PS 480 can be counted toward the major.

At least 18 hours in the major must be taken at John Carroll University.

A comprehensive examination, given during the senior year, must be passed by all majors in psychology.

Required Support Courses: MT 122 and MT 223 (minimum grade of Crequired in MT 223) should be taken by the end of the sophomore year. MT 228 may substitute for MT 122.

Minor in Psychology: 22 credit hours. PS 101, 301/301L, plus one course from each content group (A, B, C, and D), and one elective at the 200 level or higher.

Learning Goals

- 1. Knowledge base in the core areas of psychology.
- 2. Critical thinking skills.
- 3. Communication skills in the language of psychology.
- 4. Information and technological literacy.
- 5. Research methods and statistics in psychology.
- 6. Ethics and values of the discipline.
- 7. Sociocultural and international awareness.
- 8. Application of psychology, including service to the community.

The Psychology Major

Psychology majors receive a firm grounding in the scientific aspects of the discipline. After completing the introductory psychology course (PS 101), majors choose from a number of courses to gain a foundation in the core areas of the discipline. Once this foundation is achieved, students move on to upper-division specialty courses that add depth to their knowledge of psychology.

Psychology majors and minors are also required to complete course work in statistics and psychological research. This training is essential for students to receive adequate preparation for either graduate study or a professional career in psychology or an allied discipline.

PS 101 is Prerequisite to all courses at the 200 level and beyond in psychology, unless otherwise noted. PS 101 is the only 100-level course that is counted in the psychology major. Majors may apply other 100-level psychology courses to the University Core or general elective credit-hour requirements. Check the listings in the schedule of classes each semester to see which courses may be applied to Division IV and other University Core requirements.

Preparation for Graduate Study in Psychology: Graduate study in psychology takes many forms. Students seek admission in many specialty areas, including clinical, developmental, social, industrial/organizational, sports, comparative, biological, experimental, cognitive, school, or counseling psychology, and neuroscience. The psychology major is also excellent preparation for medical school and other health professions, law school, business administration, and social work. Students planning to pursue a graduate degree in psychology or an allied discipline should seek a firm foundation in the core areas of psychology and obtain research experience through additional course work and independent study. The following courses are recommended for students planning graduate study: PS 190, 241, 261, 262, 301/301L, 318/318L, 326, 332/332L, 365, 380/380L, 401, 421, 435, 457, 471, and 497N or 499.

Specialized Tracks in Psychology: Psychology majors may elect to complete one of the following four tracks in applied psychology. These focused tracks were designed for students with specialized interests in applying psychological principles in business, school, or mental health settings. Because courses in these tracks are not offered every semester, careful planning and course selection will increase the likelihood of successfully completing a track.

Child and Family Studies: This track provides an opportunity for students to examine development from prenatal development through the end of life by the integration of theory and practice. There is a focus on the individual and individuals in a family context. This course of study supports students who wish to work in applied settings with children and families after graduation, as well as those who wish to continue to graduate study. Completing both the child and family studies track and the psychology major requires completion of the following courses: PS 101, 261, 262, 301/301L, 326, 332/332L or 380/380L, 342, 365, 415, 435, 455, or 457, 476; SC 225 or 275; one PS elective the the 300-400 level. **Coordinator:** Dr. Sheri Young.

Eating Disorders: This track intended for students who have an interest in studying eating disorders, applying theory and research from a clinical, interdisciplinary perspective. While a practicum is not required students who wish to register for the eating disorders track will become eligible for practicum placement at the completion of PS 381 Eating Disorders or with the permission of the track coordinator. Completing both the eating disorders track and the psychology major requires completion of the following courses: PS 101, 261 and 262, 301/301L, 326, 332/332L or 380/380L, 362, 375, 435, 455, 457, 462. Support courses include: PL 305 and 350, PE 200. Courses which are recommended, but not required, include HS 341 and PO 305/305H. **Coordinator:** Dr. Denise Ben-Porath.

Forensic Psychology Track: This track is intended for students who have an interest in clinical psychology, forensic psychology, criminology, or law, as well as those who will be seeking employment in the criminal justice system. Requirements for completing both the forensic psychology track and the psychology major are as follows: PS 101, 301/301L, 370, 435, 457, 471; one of PS 318/318L or 326; one of PS 241, 261, or 262; one of PS 332/332L, 380/380L, or 386; one of PS 470, 482, or 483; and one of PS 375 or 462; one of SC 220, 240, or 345. **Coordinator:** Dr. Elizabeth Swenson.

Industrial/Organizational Psychology: This track is intended for two groups of students: those who wish to pursue graduate training in I/O psychology and those seeking employment in I/O-related areas. Students prepare for entry-level positions in a variety of work settings that involve job analysis, staffing, training, and performance evaluation. Students should select their courses carefully and consult with the department early in their program. Course Prerequisites must be observed. Completing both the I/O track and the psychology major requires all of the following: PS 101, 241, 301/301L, 359, 435, 459, 480C, 481C, two additional PS electives; one of PS 318/318L or 326; one of PS 332/332L, 380/380L, 386; four of MN 353, 370, 373, 376, BI 200, LP 203. **Coordinator:** Dr. Beth Martin.

Mental Health Services: This track is intended for two groups of students: those who plan on graduate study in clinical/counseling psychology or related fields immediately or shortly after graduation, and those who will be seeking employment in some area of human services immediately after graduation. Those planning to go to graduate school should follow the advice given above in the section on preparation for graduate study. In most cases these students will do only one semester of practicum. Students planning to seek employment after graduation should consider doing two semesters of practicum, either at one setting or two. Requirements for completing

Psychology

both the mental health services track and the psychology major are as follows: PS 101, 301/301L, 435, 457, 462, 471, 477, 482C, or 483C; one course chosen from PS 241, 261, 262; one of PS 332/332L or 380/380L; one of PS 318/318L or 326; and at least one additional PS elective. **Coordinator:** Dr. David W. Rainey.

Psychology and Sports Sciences: This track is intended for students who wish to combine their interests in psychology and sports-related disciplines. It explores issues related to sports from experimental, practical, and interdisciplinary approaches. Completing both the psychology and sports sciences track and the psychology major requires the following courses: PS 101, 241, 261 or 262, 301/ 301L, 310, 326, 318/318L or 326, 332/332L or 380/380L or 386, 342, 455 or 457, and three additional PS electives. Required support courses include PL 312, PE 201/ 201L, 205/205L, 206/206L, 304/304L, and HS 155. **Coordinator:** Dr. John Yost.

Interdisciplinary Concentration in Neuroscience

This interdisciplinary concentration is coordinated by the Department of Psychology. The program provides an interdisciplinary approach to the study of physiology, biochemistry, and the behavior of higher animals. The program and the required courses are described in the section of this *Bulletin* on "Interdisciplinary Minors and Concentrations," pages 83-90. **Coordinator:** Dr. Helen M. Murphy.

Interdisciplinary Concentrations

Besides Neuroscience, the Department of Psychology participates in the Aging Studies and Africana Studies interdisciplinary concentrations (see pages 83-90).

Co-Operative 3/2 Program with the Mandel School of Applied Social Sciences

A special agreement with the Mandel School of Applied Social Sciences (M-SASS) at Case Western Reserve University enables qualified psychology majors to enroll in the M-SASS program after their junior year at John Carroll. Successful completion of this two-year program results in a B.S. in psychology from John Carroll and a master's in social work from Case Western Reserve University. For details, including standards for eligibility, consult the chair of the Department of Sociology and Criminology, who coordinates this program, during freshman year.

- **101. INTRODUCTION TO PSYCHOLOGY 3 cr.** Fundamental principles of behavior, including research methods, learning, memory and cognition, biological basis of behavior, perception, motivation, human development, social psychology, personality, psychopathology, and psychological testing. A Prerequisite to all PS courses at the 200 level and beyond.
- **150. VIOLENCE AND AGGRESSION 3 cr.** Biological, psychological, and sociological aspects of violence and aggression. Basic theories and principles relevant to the topic in general and the components of specific acts and forms of violence. Does not fulfill requirements of the psychology major.

- 175. LIFE SPAN DEVELOPMENT 3 cr. Survey of basic theories and research relative to human growth and development from prenatal development through the end of life, with an emphasis on the physiological, cognitive, socio-emotional, psychological, and cultural changes at various stages of life. Intended for non-majors, particularly those pursuing careers in the health professions. Does not fulfill requirements of the psychology major. Cannot be taken concurrently with PS 261, 262, or 365.
- **190. PLANNING FOR GRADUATE SCHOOL IN PSYCHOLOGY 1 cr.** Information on preparation for selection of and applying to psychology graduate programs. Does not fulfill requirements of the psychology major. Pass/Fail.
- **226. DRUGS AND BEHAVIOR 3 cr.** Prerequisite: PS 101 or BL 155. Introduction to the field of psychopharmacology, with special emphasis on the relationship between drugs and human behavior. Topics include history, routes of administration, absorption, distribution, metabolism, excretion, and adverse effects of psychoactive drugs. Students intending to follow the neuroscience concentration must take PS 426, not PS 226.
- **241. SOCIAL PSYCHOLOGY 3 cr.** Introduction to the scientific field that explores the nature and causes of individual behavior and thought in social situations. Social psychology is the science of everyday, normal behavior. Topics include nonverbal behavior, the detection of lying, attributions we make about the causes of behavior, social cognition, prejudice, self-concept, interpersonal attraction, persuasion, and aggression.
- **261. CHILD DEVELOPMENT 3 cr.** Prerequisite: PS 101 (or ED 201 for education majors only). Survey of the basic theories and research on human growth and development from conception through late childhood, emphasizing the physiological, intellectual, social, emotional, and cultural changes associated with human life. Cannot be taken concurrently with PS 175.
- **262. ADOLESCENT DEVELOPMENT 3 cr.** Prerequisite: PS 101 (or ED 201 for education majors only). Survey of the basic theories and research relative to human growth and development from preadolescence to young adulthood, with emphasis on the physiological, intellectual, socio-emotional, and cultural changes associated with human life. Cannot be taken concurrently with PS 175.
- **295. INTRODUCTION TO SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr.** A selection of courses on a variety of topics in psychology designed for both psychology and non-psychology majors; appropriate for exploring special topics at the 200 level. Students seeking a more advanced focus on special topics in psychology should register for PS 395 or 495.
- **297. INTRODUCTION TO COGNITIVE SCIENCE 3 cr.** A topic-oriented introduction to cognitive science, which uses an interdisciplinary approach to study the mind and mental processes, including attention, memory, language, thought, and decision making. Lecture, discussion, in-class demonstrations, and out-of-class assignments.
- **299. RESEARCH EXPERIENCE IN PSYCHOLOGY 1-3 cr.** Prerequisite: permission of instructor. A beginning/intermediate-level research practicum to gain familiarity with the process of research in areas such as (a) learning to conduct a literature review, (b) gaining familiarity with SPSS software, (c) managing and organizing databases, (d) collecting data, and (e) scoring/coding psychological measures. Supervising faculty will guide the research. May be repeated for a cumulative maximum of 3 credit hours.

- **301. EXPERIMENTAL DESIGN AND ANALYSIS IN PSYCHOLOGY 4 cr.** Prerequisites: MT 122, 223 (with at least a C- in MT 223); corequisite: PS 301L. Introduction to the scientific method as it is used to design, conduct, and analyze experiments in psychology.
- **301L. EXPERIMENTAL DESIGN AND ANALYSIS LABORATORY 0 cr.** Corequisite: PS 301. Two hours of laboratory per week. Students work in groups to design and conduct an experiment investigating some aspect of human behavior, then analyze the data.
- **310. SPORT PSYCHOLOGY 3 cr.** Topics include personality and sport; anxiety, arousal, and sport performance; motivation in sport; violence in sport; socialization in sport; psychological benefits of sport and exercise; and psychology of sport injuries.
- **318. SENSATION AND PERCEPTION 3 cr.** Corequisite: PS 318L. Structure and function of the sensory systems, how they encode environmental stimuli, and how we process these stimuli to perceive the world. Perceptual illusions are demonstrated and explained.
- **318L. SENSATION AND PERCEPTION LABORATORY 0 cr.** Corequisite: PS 318. Two hours of laboratory per week. Students will participate in experiments investigating human perception related to topics in PS 318.
- **326. PSYCHOBIOLOGY 3 cr.** Prerequisite: PS 101 or BL 155. Study of the anatomical, physiological, and biochemical mechanisms underlying behavior.
- **332. LEARNING AND BEHAVIOR 3 cr.** Corequisite: PS 332L. Fundamentals of classical and operant conditioning and how they may be used to change behavior in applied settings.
- **332L. LEARNING AND BEHAVIOR LABORATORY 0 cr.** Corequisite: PS 332. Two hours of laboratory per week. Applying principles of operant and classical conditioning; specifying behavioral objectives; applying principles of reinforcement to change behavior.
- **342. PSYCHOLOGY OF PREJUDICE 3 cr.** Discussion of classic and contemporary theories and research on stereotypes, prejudice, discrimination, and intolerance.
- **351. THEORIES AND RESEARCH ABOUT PERSONALITY 3 cr.** Survey of major personality theories with critical consideration of research support.
- **359. INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 3 cr.** Topics for understanding the selection and evaluation of workers within organizations. Current theories of work motivation, job design, and leadership, focusing on applications within organizations.
- **362. HEALTH PSYCHOLOGY 3 cr.** Demonstrates and highlights how the biopsychosocial model can be applied to a multitude of populations—both healthy and ill—and contexts (e.g., disease prevention and treatment).
- **365. ADULTHOOD AND AGING 3 cr.** Study of growth and development from young adulthood to the end of life with emphasis on life stages, transitions, and the breadth of human experience. Cannot be taken concurrently with PS 175.
- **370. FORENSIC PSYCHOLOGY 3 cr.** Overview of the implications of psychological theory and methods for various legal issues and the legal perspective on some psychological issues. Social science research on legal topics such as confessions, eyewitness testimony, the jury, insanity, and competency. Focuses on the criminal justice system with some civil issues. No knowledge of the legal system is assumed.
- **375.** CLINICAL PSYCHOLOGY 3 cr. Topics unique to the clinical psychologist, including psychological assessment, treatment intervention, professional issues, single-case research designs, and subspecialties in the area of clinical psychology. Specialized topics include neuropsychology, forensic psychology, and child clinical psychology.

- **380. HUMAN MEMORY AND COGNITION 3 cr.** Corequisite: PS 380L. Theoretical study of how people acquire and use knowledge. Topics include attention, how meaning is represented, memory, language, reasoning, and problem solving.
- **380L. HUMAN MEMORY AND COGNITION LABORATORY 0 cr.** Corequisite: PS 380. Two hours of laboratory per week. Students participate in experiments investigating human cognition related to topics in PS 380.
- **381. EATING DISORDERS 3 cr.** Focus on anorexia nervosa, bulimia nervosa, and binge eating disorder. How psychologists diagnose and treat those with an eating disorder. Also, etiological models of eating disorders that focus on genetic/biological, environmental, and socio-cultural (e.g., media) influences. Medical complications associated with eating disorders and the role of the physician, dietician, and nutrition in addressing these issues.
- **386. MIND, BRAIN, AND BEHAVIOR 3 cr.** Prerequisite: PS 101 or BL 155. Examination of the nature of mind in relationship to cellular structure, chemical signals, and operations in the brain. Association of functions of the brain with human consciousness, language, thinking, memory, and emotion. Application of modern imaging and recording techniques to explain differences between high- and impaired-functioning individuals.
- **395. SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr.** A selection of courses on a variety of special topics in psychology designed for both psychology and non-psychology majors; appropriate for exploring special topics at the 300 level. Students seeking a more advanced treatment of special topics in psychology should register for PS 495.
- **401. ADVANCED RESEARCH METHODS IN PSYCHOLOGY 3 cr.** Prerequisites: PS 301 and PS 301L (with at least a B) and permission of instructor. Students plan, conduct, and analyze data from individual research projects, and prepare a manuscript suitable for submission to a psychological journal.
- **407. PSYCHOLOGY OF AUTISM 3 cr.** For students interested in learning more about individuals with autism spectrum disorders. Focus on the characteristics and incidence of autism, and the implications for children's learning, behavior and ability to process information. Students will explore the latest research on potential causes, best practices for assessment and intervention, areas of impairment, as well as current issues related to autism services. Highly recommended for, but not limited to, students participating in the autism internship at the Cleveland Clinic Center for Autism.
- **415. MULTICULTURAL PSYCHOLOGY 3 cr.** Examines the influence of the social, cultural, and historical factors which impact the formation of identity within groups as well as between groups. Theoretical approaches to understanding individual and group identity will be used to critically evaluate the implications and application of current research and literature, while working toward enhancing cultural competencies in professional settings.
- **421. HISTORY AND SYSTEMS OF PSYCHOLOGY 3 cr.** Development of psychology from its philosophical antecedents to its present status as a behavioral science and profession. Recommended as preparation for the departmental comprehensive examination.
- **426. PSYCHOPHARMACOLOGY 3 cr.** Prerequisite: PS 326 or BL 155. Not open to those with credit in PS 226. Effects of psychotropic drugs on behavior, cognitive functioning, and emotion, with an emphasis on both psychotherapeutic agents utilized in the treatment of biochemical abnormalities associated with various psychopathologies and drugs of abuse.
- **435. TESTS AND MEASUREMENTS 3 cr.** Prerequisite: MT 122 or equivalent. Survey and evaluation of current psychological test theory. Test construction, reliability, validity, and frequently used psychological tests are covered. This is not a course in test administration.

- **442. LAB MANAGEMENT SCIENCE IN PSYCHOLOGY 1-3 cr.** Prerequisite: A grade of B+ or higher in PS 301. CITI certification for work with human participants must be completed at the beginning of the course. Students will use SONA, SPSS, MediaLab, and Qualtrics to assist faculty and student researchers in troubleshooting research protocols. Lab managers will monitor department lab space and equipment and ensure compliance with the Institutional Review Board, federal and department regulations, and APA guidelines for research with human participants. May be repeated for up to 3 credits.
- **455. CHILD AND ADOLESCENT PSYCHOPATHOLOGY 3 cr.** Prerequisite: PS 261 or 262. Conceptualization and definition of developmental psychopathology; the study of developmental processes that contribute to the formation of, or resistance to, psychopathology. Specific focus on the causes, assessment, and treatment of developmental and behavioral disturbances in infants, children, and adolescents. Above all, this course aims to illuminate the mutual influences of psychopathology and normal developmental processes.
- **457. PSYCHOPATHOLOGY 3 cr.** Theories and controversies about psychopathology and the etiology and symptoms of selected categories of emotional disturbance, with special reference to the current Diagnostic and Statistical Manual.
- **459. PERFORMANCE MANAGEMENT AND GOAL SETTING 3 cr.** Prerequisite: PS 359 or MN 325. Integration of applied and theoretical principles of performance evaluation and goal setting into today's workplace.
- **462. COUNSELING THEORY AND PRACTICE 3 cr.** Major counseling theories, including psychodynamic, cognitive-behavioral, and phenomenological theories as well as third-wave therapies, such as acceptance and commitment therapy (ACT) and dialectical behavior therapy (DBT). Discussion of the techniques employed in these approaches and empirical support for therapeutic interventions.
- **470. SEMINAR ON CHILDREN IN THE LEGAL SYSTEM 3 cr.** Overview of relevant case and statutory law pertaining to children and families. Topics include parental rights, child protection, child custody, foster care, juvenile justice, children's rights, children in the courtroom, decision making, and the termination of the parental relationship. A term paper and participation in a mock trial are required.
- **471. SEMINAR IN ETHICS IN PSYCHOLOGY 3 cr.** Professional ethics in the field of psychology. Ethical dilemmas that confront mental health service providers and counselors, researchers, university-level educators, and those in psychology-related fields. Based on the American Psychological Association Ethical Principles of Psychologists and Code of Conduct and how it is useful in the analysis and resolution of ethical dilemmas.
- **476. SENIOR SEMINAR IN CHILD AND FAMILY STUDIES 3 cr.** Prerequisite: permission of instructor. Students following the Child and Family Studies track will discuss issues related to children and families.
- **477. SENIOR SEMINAR IN MENTAL HEALTH SERVICES 3 cr.** Prerequisite: permission of instructor. Students following the Mental Health Services track will discuss issues related to the delivery of mental health services.
- **478. SENIOR SEMINAR IN EATING DISORDERS 3 cr.** Prerequisite: permission of instructor. Students in the Eating Disorders track will discuss issues related to services for those with eating disorders.
- **479. SENIOR SEMINAR IN PSYCHOLOGY 3 cr.** Series of courses on a variety of special topics in psychology designed for senior psychology students.

- **480-489. PRACTICA IN PSYCHOLOGY 1-3 cr.** Limited to junior and senior psychology majors with permission of instructor. Supervised application of psychological principles and techniques in appropriate settings. Arrangements for the practicum site need to be completed, in consultation with the instructor, in the semester prior to the placement. A scholarly paper, developed with the supervising faculty member, is required. Specific practica are listed below.
- 480-481. PRACTICUM IN I/O PSYCHOLOGY 1-3 cr. Business and industrial settings.
- **482-483. PRACTICUM IN MENTAL HEALTH SERVICES 1-3 cr.** Educational and clinical settings.
- **484-485. PRACTICUM IN GENERAL PSYCHOLOGY 1-3 cr.** Educational, clinical, governmental, business, and industrial settings.
- **486-487. PRACTICUM IN CHILD AND FAMILY STUDIES 1-3 cr.** Educational, clinical, and school settings.
- **488-489. PRACTICUM: THE HOSPITALIZED CHILD 3 cr.** Prerequisites: PS 261 or PS 262 and permission of instructor. Sequence of supervised experiences in the application of psychological principles and techniques to physical and emotional problems with infants, children, adolescents, and their families in a university medical setting.
- **494. INTERNSHIP AND SEMINAR IN FORENSIC SCIENCE 3 cr.** Prerequisites: senior standing, completion of at least 18 hours of the Forensic Behavioral Science minor (including SC 223, and either PS 370 or SC 388), and permission of instructor. Internship includes field placement in a law enforcement, criminal justice, legal, or research setting in which forensic work is currently conducted. Placement includes a weekly time commitment to the host site and some hands-on responsibilities; also, a weekly seminar requiring ongoing reports, reflection, and analysis by fellow interns about their field experience.
- **495. ADVANCED SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr.** A selection of courses on a variety of special topics in psychology designed for psychology majors and non-majors.
- **496. READINGS IN PSYCHOLOGY 1-3 cr.** Prerequisites: 3.0 GPA and permission of instructor and department chair. Supervised readings course for advanced undergraduates, mutually arranged by each student and a faculty member so that the student may become informed in depth on a specialized topic in psychology. Requires critical and original review of the literature. A course plan must be developed with the instructor and approved by the department chair prior to enrollment.
- **497N. ADVANCED RESEARCH TOPICS IN NEUROSCIENCE 3 cr.** Prerequisites: 3.0 GPA and permission of neuroscience concentration coordinator. Advanced undergraduate participation in the conception, design, execution, and reporting of a research project in neuroscience. A course plan must be developed with the instructor and approved by the neuroscience coordinator prior to enrollment.
- **498. PRACTICUM IN RESEARCH METHODS 1 cr.** Prerequisites: PS 301 and permission of instructor. Practicum in research methods and assisting instructor by serving as resource person for students in PS 301. At 1 cr. per semester per section, this course may be repeated for up to 3 credits.
- **499. INDIVIDUAL RESEARCH PROJECT IN PSYCHOLOGY 1-3 cr.** Prerequisites: 3.0 GPA, PS 401, and permission of instructor and department chair. Advanced undergraduate participation in the conception, design, execution, and reporting of a research project in psychology. Research should be publishable, and the student's contribution should warrant citation as co-author. A course plan must be developed with the instructor and approved by the department chair prior to enrollment.

Russian (RS)

Associate Professor: G. Sabo, S.J.

The study of the Russian language and culture helps students become acquainted with a major country, in land mass the largest in the world. Beginning Russian (RS 101-102) develops novice levels in skills of reading, understanding, writing, and speaking Russian. IC [International Cultures] 230 and 231 enable students to read in English classic Russian short fiction from 1800 to the present in the context of two other Slavic literatures—Slovak and Czech.

While offering a way to fulfill the language requirement in the University Core Curriculum, Russian is important for students interested in art history, business, diplomacy, engineering, humanities, law, philosophy, political science, computer science, religious studies, and natural sciences. Knowledge of the language is extremely useful for future scientists and engineers; nearly a quarter of all scientific literature is written in Russian. It also is an excellent choice for business majors wishing to tap into the still unsaturated markets and take advantage of other business exchange opportunities in Russia and other countries of the former Soviet Union. Many businesses are eager to engage in import/export with the U.S.

- **101. BEGINNING RUSSIAN I 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. (Fall)
- **102. BEGINNING RUSSIAN II 3 cr.** Prerequisite: RS 101 or equivalent. Amplification of language skills in a cultural context. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Russian at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Prerequisite: permission of instructor. Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE RUSSIAN I, II 3 cr. each.** Prerequisite: RS 102 or equivalent. Further development of the four language skills for communication in a cultural context; expansion of vocabulary, idiomatic usage, and grammar. RS 201 or equivalent Prerequisite to RS 202. (Fall-201, Spring-202)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study in Russian at the intermediate level. May be repeated with a different topic.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.

Slovak (SL)

Associate Professor: G. Sabo, S.J.

The study of the Slovak language and culture helps students to become acquainted with one of the newest members of the European Union and a relatively new independent, sovereign, and democratic nation (1993). Beginning Slovak (SL 101-102) develops novice levels in skills of reading, understanding, writing, and speaking Slovak. IC [International Cultures] 230 and 231 enable students to read in English classic Slovak short fiction from 1800 to the present in the context of two other Slavic literatures—Russian and Czech.

While offering a way to fulfill the language requirement in the University Core Curriculum, Slovak—as the most geographically central Slavic language—is also a valuable key to communicating with others in Central and Eastern Europe. Moreover, Slovak is an Indo-European language, like English, and shares more vocabulary with it than is generally realized.

- **101. BEGINNING SLOVAK I 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. (Fall)
- **102. BEGINNING SLOVAK II 3 cr.** Prerequisite: SL 101 or equivalent. Amplification of language skills in a cultural context. (Spring)
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Slovak at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE SLOVAK I, II 3 cr. each.** Prerequisite: SL 102 or equivalent. Further development of the four language skills for communication in a cultural context; expansion of vocabulary, idiomatic usage, and grammar. SL 201 or equivalent Prerequisite to SL 202. (Fall-201, Spring-202)
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study of Slovak at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.

Sociology and Criminology (SC)

Professors: D. A. Dukes, S. O. Long, P. B. Harris (Chair); Associate Professors: K. N. Eslinger, R. D. Clark, W. A. Wiedenhoft-Murphy, G. S. Vaquera; Assistant Professor: M. W. Barnes

Sociology is a broad discipline that includes the study of human interaction as well as the analysis of underlying social structure. Thus sociology students study social human behavior, in particular, the way people interact, organize, and take action. The discipline provides students with a strong analytical and theoretical background and skills to work with and understand people. The substantive areas covered within the Department of Sociology and Criminology include aging, anthropology, crime and deviance, consumer society, cultural diversity, the environment, forensics, the family, health and illness, human service and social justice, poverty and social inequality, prejudice and discrimination, population and public health, and sexuality, sex, and gender. The department offers regular course work in all of these areas.

Many students participate in internships in nonprofit and governmental agencies. Graduates have gone into many careers: law and criminal justice, social work and counseling, population and public health, nonprofit administration, education, and business, as well as sociology and anthropology.

Major and Minor Requirements

Major in Sociology and Criminology: 36 credit hours. SC 101, 201, 400, 460, 460L are required. At least 18 hours must be at the 300 or 400 level. MT 122 is also required of sociology and criminology majors and is a Prerequisite for SC 460 and 460L. At least 21 hours in the major must be taken at John Carroll University.

Comprehensive Examination: All sociology majors are required to pass the Major Field Achievement Test in sociology as a condition for graduation. This should be taken in the spring of senior year. Details of the examination are available from the department chair.

Minor in Sociology and Criminology: 21 credit hours. SC 101, 201, 400 are required, and four other sociology courses of the student's choice.

It may be desirable to construct the minor in a way that enables completion of one of the tracks or areas defined within the department. Students constructing a sociology and criminology minor are encouraged to select courses that complement their chosen major. See the department chair for further details.

Major and Minor

Sociology and criminology majors may elect to focus their study in one or more of the areas of expertise (tracks) represented in the department. Depth of knowledge can be obtained by taking a larger portion of course work within one of these areas. Such focus, however, is not required, and students may elect to take a variety of courses in the field, as a broad education in sociology can be obtained in this manner.

SC 101 is usually taken in the freshman year and is a Prerequisite to many 200-, 300-, and 400-level courses. Upper-division courses are advanced courses and should ordinarily be taken during junior and senior years. At the time that students declare their major, all who intend to declare sociology and criminology must make application to the department and meet with the department chair. Applicants will be expected to have an overall GPA of 2.5 to be accepted as sociology and criminology majors.

Specialized Tracks in Sociology and Criminology

Sociology and criminology majors or minors *may* elect to focus attention on one of three specialized tracks in sociology. Fulfillment of the tracks requires that all requirements and options within the tracks be successfully completed. In some cases, the requirements for a track may exceed the requirements for the sociology and criminology minor.

The **Criminology** track is recommended for students interested in crime, forensics, law, police work, and justice. Internships are available to seniors in their spring semester, and students will be matched to an internship site based on their career interests. Seniors interested in an internship should notify the department in September of their senior year. Track requirements are 18-19 credit hours. The track consists of five tiers of courses. Tier I: Introductory Courses (Select 1) – SC 230 or 240; Tier II: Special Topics in Criminology (Select 1) – SC 220, 265, or 275; Tier III: Additional Sociology Courses (Select 1) – SC 215, 225, 330, or 360; Tier IV: Advanced Topics in Criminology (Select 1) – SC 340, 343, 345, 365, or 388; and Tier V: Summary Courses in Criminology (Select 2) – SC 435, 440, or 494. All tiers must be completed to fulfill the requirements of this track.

The **Cultural Diversity** track promotes an appreciation of the variety of ways humans live and prepares students for an increasingly interdependent world. It is recommended for students considering a career in a multicultural setting or graduate study in comparative sociology, ethnic studies, international studies, anthropology, law, counseling, or social work. Internships are available to seniors in their spring semester, and students will be matched to an internship site based on their career interests. Students interested in an internship should notify the department in September of their senior year. The track requires a total of 18 credit hours. Students must take either SC 245 or 255 as their foundational course in the diversity sequence and one course that will deepen their knowledge of a particular culture or world area (SC 151, 250, 253, 353, or another course approved by the department chair). Additionally, students must select four other courses from the following list: SC 151, 245, 250, 253, 255, 315, 320, 330, 353, 355, 370, 390, 455, 475, 490, or CO 390.

Sociology and Criminology

The **Human Service, Health, and Social Justice** track is recommended for students interested in counseling, social work, law, advocacy, population and public health, public policy, public administration, nonprofit administration, and other related careers. Internships are required of seniors during their spring semester, and students will be matched to an internship site based on their career interests. Students needing an internship should notify the department in September of their senior year. The track requires a total of 20 credit hours, consisting of SC 111, 273, 385, 475, 490, and at least one of the following: SC 225, 230, 255, 275, 285, 290, 295, 300, 315, 320, 330, 340, 370, 380, or 390.

Please consult the department chair about questions and details regarding the tracks.

Interdisciplinary Minors and Concentrations

Sociology and criminology majors and minors may also participate in a number of interdisciplinary minors and concentrations, such as: 1) Aging Studies; 2) East Asian Studies; 3) Environmental Studies; 4) Women's and Gender Studies; 5) Latin American Studies; 6) Entrepreneurship; 7) Catholic Studies; 8) Peace, Justice, and Human Rights; 9) Population and Public Health; and 10) Forensic Behavioral Science. For details about interdisciplinary minors and concentrations, see pages 83-90 of this *Bulletin* and consult the respective coordinators.

Core Curriculum Requirements and the Writing-Intensive Course in Sociology and Criminology

The content of sociology courses contributes strongly to students' education through the Core Curriculum. The field of sociology initiated much of the early research on diversity and inclusion, and most sociology and criminology courses reflect a continuing emphasis on that topic. The department also offers numerous international courses as an important part of its curriculum. The emphasis on scholarly writing is reflected in course content, and students will find that the schedule of classes for a given semester reflects these emphases. For students taking SC 101 or SC 245 as a Core requirement, it is recommended that the course be taken at John Carroll.

It should be noted that the writing requirement of the Core Curriculum *must* be fulfilled by sociology and criminology majors through completion of a writing-intensive course in the department. Students will find appropriate sociology courses marked with a "W" in the course schedule, designating it as a writing-intensive course.

Academic Study-Abroad Opportunities for Sociology and Criminology Students

The Department of Sociology and Criminology encourages its students to engage the world through a number of academic study-abroad opportunities: 1)

interdisciplinary courses abroad offered in the summer by department faculty with other John Carroll faculty: SC 356 (Research in Japanese Society and Culture); SC 393 (Peace and Conflict Transformation in Northern Ireland); and SC 399A (Restoring a Nation: Post-Conflict Transformation in South Africa); or 2) study-abroad programs coordinated by the University's Center for Global Education.

Community Service and Social Justice in the Sociology and Criminology Curriculum

The department is committed to social justice and community service with a faculty and curriculum oriented to provide such opportunities for students. It provides preparation for service and promotes understanding of various issues related to social justice through SC 111, 255, 273, 300, 330, 385, 380, 475, 493, and many other courses. It also cooperates with other University offices in placing students for volunteer service. See the department chair for full details.

Student Awards

See page 48.

Graduate Programs

Many graduates of the department have undertaken graduate study in sociology and a variety of related fields, such as anthropology, law, social work, counseling, public health, public policy, and nonprofit administration. The department encourages the intellectual development that makes graduate work possible. It also assists in graduate school application procedures. For more information, students should consult an academic advisor in the department.

The department is also a founding member and a participating department in the Master of Arts in Nonprofit Administration at John Carroll. The nonprofit administration program is intended for those who desire careers managing nonprofit organizations that provide assistance to people in need. It is an interdisciplinary professional degree program housed in the social sciences. Faculty from ten different departments of the University, including the Boler School of Business, offer course work in the program.

A special agreement with the Mandel School of Applied Social Sciences (M-SASS) at Case Western Reserve University enables qualified sociology and criminology majors to enroll in the M-SASS program after their junior year at John Carroll. Successful completion of this two-year program results in a B.A. in sociology from John Carroll and a master's in social work from Case Western Reserve University. For details, including standards for eligibility, consult the chair of the Department of Sociology and Criminology during the freshman year.

- **101. INTRODUCTORY SOCIOLOGY 3 cr.** Survey of human social relations, diversity, and societal social structure; introduction to the major divisions of the field of sociology.
- 111. INTRODUCTION TO SOCIAL JUSTICE 3 cr. Overview of the theories of social justice, including discussion and analyses of social inequalities both domestic and global, and issues related to civic engagement, social responsibility, and change. Service learning component required.
- **151. CULTURES OF EAST ASIA3 cr.** Introduction to the cultures of China, Korea, and Japan. Explores background of these countries' cultures historically and the diversity of contemporary life within and between these societies. Considers East Asian cultures in the context of global influences.
- **199. SPECIAL STUDIES 1-3 cr.** Variety of courses with special focus; subjects will be announced in the course schedule.
- **201. SOCIAL PROBLEMS 3 cr.** Prerequisite: SC 101. Survey of modern problems using frames of reference and concepts introduced in SC 101. Topics include crime and deviance, delinquency, health care, mental health, sex-related social problems, divorce and the family, poverty, discrimination, population and environmental problems.
- **215. INDIVIDUAL AND SOCIETY 3 cr.** Prerequisite: SC 101. Introduction to sociological social psychology theories and concepts concerning the relationship between the individual and society. Topics include the process of socialization, the development of one's sense of self, how individuals are affected by groups and group processes, and the symbolic nature of human interaction.
- **220. CRIMINAL JUSTICE SYSTEMS 3 cr.** Prerequisite: SC 101. Overview of the American system of criminal justice as an integrated process with focus on procedures and functions or system components, including law, police, prosecution, court, and corrections.
- **223. FORENSICS: OVERVIEW OF CRIME SCENE ANALYSIS 3 cr.** Introduction to the practice of crime scene investigation and the field of forensic science. Students will learn about types of physical evidence, crime scene documentation, procedures, and subsequent scientific analyses.
- **225. SOCIOLOGY OF THE FAMILY 3 cr.** Prerequisite: SC 101. Examination of the institution of the family, with an emphasis on its changing nature in U.S. society. Topics include family structure and diversity, interaction within families, analysis of courtship and marriage patterns, intersections between work and family, parenting, and family policy.
- **230. DEVIANT BEHAVIOR 3 cr.** Prerequisite: SC 101. Causes and effects of violating social norms; inadequate socialization, labeling, and the relationship between individual and society; role of social control.
- **240. CRIMINOLOGY 3 cr.** Prerequisite: SC 101. Survey of sociological data and theories pertinent to the types and incidence of crime in America.
- **245. INTRODUCTION TO ANTHROPOLOGY 3 cr.** Study of the diversity of human lifeways that have existed historically and in the contemporary world, viewed in a framework of biological and cultural evolution.
- **250. JAPANESE SOCIETY 3 cr.** Study of Japan as a postindustrial society, focusing on social relationships, institutions, and contemporary issues.

- **253. JAPANESE POPULAR CULTURE 3 cr.** Study of contemporary Japanese material culture and lifestyles in the context of an affluent, commercialized society. (Cross-listed as HS 283 and IC 220.)
- **254. CHINESE SOCIETY 3 cr.** Focus on contemporary Chinese society in light of the rapid political, economic, and cultural changes of the past century. Topics include family, work, and the development of civil society, emphasizing the diversity of social experience by social class, ethnicity, and gender.
- **255. PREJUDICE AND DISCRIMINATION 3 cr.** Prerequisite: SC 101. Study of prejudice and discrimination, including their history, contemporary sources, and prospects for their reduction, with application to U.S. institutions. Particular emphasis is placed on understanding the social construction of difference and the experiences of stigmatized statuses, as they relate to sex and gender, race/ethnicity, sexuality, class, and disability.
- **260. CONSUMER POLITICS AND CULTURE 3 cr.** Consumer culture and politics from an interdisciplinary perspective. Examines the objects, subjects, and places of consumption, exploring a variety of topics from blue jeans to video games to supermarkets. Theoretical analysis of what motivates us to consume. Case studies include the consumer boycotts of the American Revolution and the more recent fair trade and environmental movements.
- **265. VICTIMS OF CRIME 3 cr.** Prerequisite: SC 101. Special problems faced by victims of crime; crime prevention; post-crime trauma.
- **273. PUBLIC HEALTH IN U.S. SOCIETY 3 cr.** Introduces basic concepts of public health and explores major public health issues in the United States. Central focus on health disparities regarding who becomes ill and inequalities of access to treatment due to stereotypes, racism, and social class.
- **275. FAMILY VIOLENCE 3 cr.** Prerequisite: SC 101. Social causes of violence in the family, especially dynamics of child and spouse abuse. Review of current research with attention to measures for preventing family violence and treating its effects.
- **285. AGING, HEALTH, AND SOCIETY 3 cr.** Prerequisite: SC 101. Interdisciplinary overview of aging with special attention to the impact on the individual, family, and society. Experiential learning and review of current research findings with emphasis on successful aging and health promotion.
- **290. ENVIRONMENTAL SOCIOLOGY 3 cr.** Critical examination of the relationship between society and nature, particularly how humans have attempted to dominate nature throughout history. Topics include consumption, food and agriculture, population growth, and renewable and nonrenewable energy sources. Concludes with exploring solutions to stop environmental degradation.
- **292. GLOBAL ENVIRONMENTAL ISSUES 3 cr.** Introduction to a variety of global environmental issues, including climate change, food and water scarcity, population and development, natural resource conflicts, and case studies of environmental disasters and recoveries. Students will learn why and how these issues developed, where they are most problematic, and what can be done to ensure that these issues can be managed in a sustainable and just way.
- **295. SOCIOLOGY OF DEATH AND DYING 3 cr.** Death and dying from a life-cycle perspective, including pain, grief, bereavement, and widowhood.
- 299. SPECIAL TOPICS 1-3 cr. Specialized focus on selected areas and issues in sociology.

- **300. DEATH PENALTY 3 cr.** Prerequisite: SC 101. Interdisciplinary team-taught class on the sociological and philosophical beliefs underlying support for the death penalty, nationally and internationally. History of executions, legal changes in the death penalty process, public opinion, deterrence, living and working on death row, and human rights concerns.
- **315. SEXUALITY AND SEXUAL BEHAVIOR 3 cr.** Prerequisite: SC 101. Social scientific examination of human sexuality, including biological, social, cultural, and psychological aspects throughout the life course. Topics include sexual identity, expression, and variation; sources of beliefs and attitudes about sexuality; the influence of changing gender roles and norms; and the social, psychological, and health consequences of sexual behaviors.
- **320. SEX AND GENDER 3 cr.** Prerequisite: SC 101 or 245. Study of the relationship among culture, biology, and social expectations of male and female behavior cross-culturally in global context. Topics include gender, health, and the body; gendered work and social change; gender and family; religion; social movements and gender; comparative sex/gender hierarchies; gender and sexuality; and gender and globalization.
- **330. SOCIAL STRATIFICATION 3 cr.** Prerequisite: SC 101. Theoretical background, methodological approaches, and analysis of the consequences of systems of stratification. Emphasis on issues of social class, class structure, and mobility in American society.
- **340. JUVENILE DELINQUENCY 3 cr.** Prerequisite: SC 101. Historical development of America's juvenile justice system since its inception in 1902. The range of offenses committed by youth, including delinquency and status offenses; social and personal causes, effects, and interventions.
- **343. DRUGS AND CRIME 3 cr.** Prerequisites: SC 101 and one additional SC course. Introduction to the relationship between drugs and crime; law enforcement techniques used to reduce drug abuse; prevention and treatment; and the arguments for and against drug legalization.
- **345. CORRECTIONS 3 cr.** Prerequisite: SC 101. Correctional procedures and types of penal institutions, policies, practices, and inequalities in supervising convicted offenders.
- **353.** LATINA/O TRANSNATIONAL EXPERIENCE 3 cr. Examination of social issues impacting Latina/o communities (Chicanas/os, Mexican-Americans, Puerto Ricans, Cubans, and Central Americans) within the U.S., abroad, and in this emerging transnational space. Topics include ethnic movements, immigration, identity construction, borderlands, labor, education, gender, and language policies.
- **355. COMPARATIVE ETHNIC RELATIONS 3 cr.** Prerequisite: SC 101. Overview of historical and contemporary dynamics of ethnic relations in the U.S. and selected regions and societies around the world. Fundamental concepts and dynamics in ethnic relations, the historical and contemporary experiences of major ethnic groups in the U. S., and instances of ethnic cooperation, conflict, and inequality in different parts of the world.
- **356. RESEARCH IN JAPANESE SOCIETY AND CULTURE 3 cr.** Prerequisite: permission of instructor. Guided field research in Japan involving observation and/or interviews. Includes study tour.
- **360. URBAN SOCIETY 3 cr.** Prerequisite: SC 101. Growth of urbanization; patterns of ecology, social institutions, characteristic lifestyles, and current problems in the core city, suburbs, and the urbanized region.
- **365. CORPORATE CRIME 3 cr.** Prerequisites: SC 101 and one additional SC course. Analysis of moral issues in business from the perspective of organizational deviance; case analyses of corporate and governmental deviance.

- **370. MEDICINE AND CULTURE 3 cr.** Prerequisite: SC 101. Influence of culture on illness and medical care; ecological context of illness; practitioner-patient relations; mental illness; folk and alternative methods of healing; social and cultural construction of illness.
- **380. ENVIRONMENTAL JUSTICE MOVEMENTS 3 cr.** Prerequisite: SC 101. Focus on how environmental movements have developed over time and in different contexts. Developments of the U.S. environmental movement from early pursuits for the conservation and preservation of nature to more recent struggles for environmental justice; also, global environmental movements, particularly those fighting for sustainability.
- **385. POVERTY, WELFARE, AND SOCIAL JUSTICE IN THE U.S. 4 cr.** Prerequisites: SC 101 and one additional SC course. Critical examination of poverty and welfare reform: the underlying causes, consequences, and people who are affected. Highlight is an applied research project where students develop and conduct a program evaluation for a nonprofit agency serving the poor in inner-city Cleveland. Service learning component required.
- **388. FORENSIC SCIENCE IN CRIMINAL JUSTICE 3 cr.** Prerequisite: completion of at least 9 hours in the minor (including SC 223). Focus on the basic concepts of evidence as applied in the criminal legal system. The application of legal constraints and definitions on evidence and trial process are discussed. Court decisions illustrate the use of forensic evidence in the legal process.
- **390. HEALTH AND HEALING IN EAST ASIA 3 cr.** In-depth understanding of a system of medicine based on concepts of the human body very different from those of biomedicine. Explores the practice of traditional Chinese medicine in China, Japan, and the U. S.
- **393.** CULTURE AND COMMUNITY IN NORTHERN IRELAND: DYNAMICS OF CONFLICT AND PEACE 3 cr. Prerequisite: SC 101. Part of John Carroll University's summer institute on Peace-building and Conflict Transformation. Examination of the historical and sociocultural dimensions of the conflict in Northern Ireland and the movement towards peace-building and community reconstruction since the Belfast Agreement of 1998. Most contact hours will be in Belfast, following a week-long orientation at John Carroll.
- **399. ADVANCED SPECIAL TOPICS 3 cr.** Prerequisite: SC 101. In-depth focus on specialized areas and issues in sociology.
- **400. SOCIOLOGICAL THEORY 3 cr.** Prerequisites: SC 101 and one additional course in sociology. Overview of classic and current theories of society. Particular focus on Marx and critical theory, Weberian theory, Durkheim and Structuralism, Symbolic Interactionism and Micro-level theories, Postmodernism, and Critical Race and Feminist theory.
- **435.** LAW, ETHICS, AND CRIMINAL JUSTICE POLICY 3 cr. Prerequisites: SC 101 and one additional SC course. Interrelationship between law and its implementation; legal processes and institutional framework; social factors affecting practice in the criminal justice system.
- **440. VIOLENCE AND SOCIETY 3 cr.** Prerequisites: SC 101 and one additional SC class. Trends and patterns of violence in society, its causes and consequences. Special focus on the influence of social environment, the impact of personal relationships, and violence prevention.
- **455. CULTURAL DIVERSITY TRAINING 3 cr.** Prerequisites: SC 245 or 255, and one additional course in the cultural diversity track. Principles underlying cultural diversity training and their application in programs in nonprofit, governmental, corporate, law enforcement, and educational settings.

- **460. SOCIAL RESEARCH METHODS 4 cr.** Prerequisites: SC 101, one additional SC course, and MT 122. Focus on the logic of, procedures for, and issues related to theory testing in social research. Hypothesis construction, concept operationalization, research design, data collection methodologies, instrument construction, and sampling techniques.
- **460L. SOCIAL RESEARCH METHODS COMPUTER LABORATORY 0 cr.** Corequisite: SC 460. A hands-on course that uses a range of qualitative and quantitative research methods to explore the social world. Topics include content analysis, field research, interviewing, survey research, and statistical analysis program SPSS.
- **475. INTERNSHIP AND SEMINAR 4 cr.** Prerequisites: SC 285 or 385, senior standing, and permission of instructor; or completion of a minimum of 12 credit hours within the cultural diversity track, senior standing, and permission of instructor. Internship in a human service, health, social justice, legal, or research setting; seminar on related personal and career growth, and analysis of and reflection on internship experience with seminar members.
- **490. MULTICULTURAL COUNSELING 3 cr.** Prerequisites: SC 101 and junior or senior standing; or graduate standing. Designed to promote a better understanding of counseling in contemporary America. Ethnicity/race relations, social-class effects, ageism, changing roles of women, sexual orientation, cultural mores, and their relevance to counselor-client relations.

Registration for SC 491, 492, and 493 requires a pre-approval process which involves an instructional plan reviewed by the instructor, department chair, and dean's office.

- 491. INDEPENDENT STUDY 1 cr.
- 492. INDEPENDENT STUDY 2 cr.
- **493. INDEPENDENT STUDY 3 cr.** Prerequisites: approval of project by instructor of course and chair of the department. Directed advanced research and/or supervised advanced readings. Students must report regularly to faculty advisor during the semester. Course available only if regular classroom instruction on the selected topic is unavailable, and/or course of study extends beyond a previously taken course.
- 494. INTERNSHIP AND SEMINAR IN FORENSIC SCIENCE AND CRIMINOLOGY
- **4 cr.** Prerequisites for forensic minors: senior standing, completion of at least 18 hours of the minor (including SC 223 and either PS 370 or SC 388), and permission of instructor; prerequisites for sociology and criminology majors: senior standing, completion of SC 435 or 440, and permission of instructor. Internship includes field placement in a law enforcement, criminal justice, legal, or research setting in which forensic work is currently conducted. Placement involves a weekly time commitment to the host site and some hands-on responsibilities. The course also includes a weekly seminar with ongoing report, reflection, and analysis among fellow interns regarding their field experience.
- **497. UNDERGRADUATE RESEARCH ASSISTANT 1 cr.** Prerequisites: SC 101, junior or senior standing, permission of instructor and chair of the department. Allows students to become more familiar with the research process through assisting faculty members in their research. Types of tasks may include but are not limited to assisting with literature reviews, subject recruitment, data collection, entering or coding data, and data analysis. Pass/Fail. May be repeated for a cumulative maximum of 3 credit hours.
- **499. ADVANCED SEMINAR 1-3 cr.** Prerequisites: SC 101, two additional courses in sociology, and senior standing. In-depth analysis of selected sociological topics. Responsibility for this seminar rotates among faculty members.

Spanish (SP)

Professor: K. M. Gatto; Associate Professors: D. G. Anderson, A. Pérez-Romero, E. Luengo; Assistant Professor: M. L. Thornton

The program in Spanish is offered by the Department of Classical and Modern Languages and Cultures. (For general information about the department, see page 167.) The Spanish program sustains a rich curriculum in language, culture, and literature. The sequence of courses in Spanish leads from competence in basic Spanish language skills to a thorough understanding of the language, as well as Spanish and Latin American civilization and literature. Programs concentrate equally on Spanish and Latin American content through a cyclical offering of courses. With some 400 million speakers, Spanish is the second most commonly spoken language in the world. With well over 35 million Spanish speakers in the United States, and with over 40% of population growth being among the Hispanic people, the stage is set for an enormous increase in Spanish usage here. Spanish is also a valuable adjunct skill to many other major programs or careers. A working knowledge of Spanish is becoming essential for employment in many areas of the country. For those students interested in business and trade, Spanish is the language of nineteen countries in Latin America, which are currently the fastest-growing export-import market for U.S. products. Spanish and Latin American cultures have made enormous contributions to architecture, the arts, and world literature. Spanish ranks third as an international language of politics, economics, and culture. In sum, learning Spanish will expand one's horizons.

Major and Minor Requirements

Major in Spanish: 36 credit hours at the 200 level and above, as follows:

- SP 201-202 and/or 301-302 as determined by placement test. Students who start with SP 201-202 should also take SP 301-302.
- SP 311 or 314 or 330.
- SP 315 is a Prerequisite or corequisite for all literature courses numbered 325 and above.
- SP 321.
- SP 325-326 or 327-328.

Three to five additional upper-division courses: two of which must be 400-level literature and/or culture courses; one of the remaining may be an IC literature course in translation.

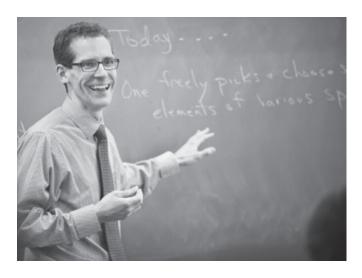
A comprehensive examination.

Minor in Spanish: 21 hours, beginning at any level. SP 301-302 are required.

- **101. BEGINNING SPANISH I 3 cr.** Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction.
- **102. BEGINNING SPANISH II 3 cr.** Prerequisite: SP 101 or equivalent. Amplification of language skills in a cultural context. Added emphasis on reading and writing.
- **198. BEGINNING INDEPENDENT STUDY 1-3 cr.** Supervised independent study of Spanish at the beginning level. May be repeated with a different topic.
- **199. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **201-202. INTERMEDIATE SPANISH I, II 3 cr. each.** Prerequisite: SP 102 or equivalent. Further development of the four language skills for communication in a cultural context; expansion of vocabulary, idiomatic usage, and grammar. SP 201 or equivalent Prerequisite for SP 202.
- **298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr.** Supervised independent study of Spanish at the intermediate level. May be repeated with a different topic.
- **299. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **301. CONVERSATION IN SPANISH 3 cr.** Development of communicative competence in Spanish through oral practice and use of conversational strategies and techniques. (Fall)
- **302. WRITING IN SPANISH 3 cr.** Development of writing ability in Spanish through practice toward consolidation of independence in the use of the written word. (Spring)
- **305. SPANISH PHONOLOGY 3 cr.** Systematic analysis and practice of the sounds of spoken Spanish.
- **306. SPANISH FOR BUSINESS 3 cr.** Acquisition of linguistic skills and a sophisticated style for the business, legal, professional setting. Emphasis on vocabulary, syntax, and idiomatic usage.
- **307. POPULAR CULTURES OF SPANISH-SPEAKING COUNTRIES 3 cr.** Latin American and Spanish cultures as seen in carnival performance, music, dance, soap operas, and films. Discussion of the politics of everyday practices associated with these expressions within the sociopolitical processes of which they are a part.
- **310. THE CINEMA OF SPAIN 3 cr.** Selected films from Spain as an expression of culture, civilization, and language. Films, instruction, and discussion in Spanish.
- **311. PERSPECTIVES ON THE PEOPLE AND CULTURES OF SPAIN 3 cr.** Development of Spain, its people, and institutions from its origins to the present. Various aspects of Spanish culture and intellectual development, especially as found in language, literature, and art forms. (Spring; alternates with SP 314 and SP 330)
- **312. THE CINEMA OF LATIN AMERICA 3 cr.** Selected Latin American films as an expression of culture, civilization, and language. Films, instruction, and discussion in Spanish.
- **314. PERSPECTIVES ON NATIONS AND CULTURES OF LATIN AMERICA 3 cr.** Development of Latin American culture from colonial times to the present. Discussion of basic institutions, political and socioeconomic patterns, the arts, and folklore. (Spring; alternates with SP 311 and SP 330)
- **315. INTRODUCTION TO LITERARY ANALYSIS 3 cr.** Introduction to critical techniques for analysis of the principal literary forms: narrative, poetry, and drama. Texts chosen from

- various periods of both Spanish and Latin American literature. Prerequisite for all other Spanish literature courses. (SP 315 may, however, be taken concurrently with SP 325 or SP 327.) (Fall)
- **316. CREATIVE WRITING IN SPANISH 3 cr.** Fundamentals and practice of creative writing across genres.
- **321. ADVANCED SPANISH GRAMMAR 3 cr.** Theory and practice of Spanish grammatical structures based on everyday usage and on literary language. Guided and creative exercises and compositions. Note: Spanish majors are strongly encouraged to take SP 321 before taking 400-level courses. (Spring)
- **325**, **326**. **INTRODUCTION TO SPANISH LITERATURE 3 cr. each.** Prerequisite: SP 315 (SP 325 may, however, be taken concurrently with SP 315). SP 325: from the Middle Ages to the beginning of the 19th century (Fall; alternates with SP 327). SP 326: from the beginning of the 19th century to the present (Spring; alternates with SP 328).
- **327, 328. INTRODUCTION TO LATIN AMERICAN LITERATURE 3 cr. each.** Prerequisite: SP 315 (SP 327 may, however, be taken concurrently with SP 315). SP 327: from the 16th century to the mid-20th century (Fall; alternates with SP 326). SP 328: representative contemporary literary texts (Spring; alternates with SP 326).
- **330.** HISPANIC IMMIGRANTS IN FILM, LITERATURE, AND MUSIC 3 cr. Exploration of the cultural production by and about Latino immigrants in the United States.
- **398. INDEPENDENT STUDY 1-3 cr.** Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
- **399. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.
- **401. ADVANCED SPANISH CONVERSATION 3 cr.** Development of advanced vocabulary and conversational techniques. Includes in-depth discussion and debate of current events and real-life issues as well as oral analysis of readings.
- **402. ADVANCED SPANISH COMPOSITION 3 cr.** Theory and practice of correct grammatical usage; correct and effective use of words; correct and effective sentence structure. Exercises in advanced composition.
- **407. TRANSLATION IN SPANISH 3 cr.** Prerequisites: SP 301 and 302 or equivalent. Methods and mechanics of translation; selection of proper tools. Comparison and evaluation of translated texts
- **427. CONTEMPORARY SPANISH AND LATIN AMERICAN POETRY 3 cr.** Study of representative poetry in Spain and Latin America since 1900.
- **430. CONTEMPORARY MEXICAN LITERATURE AND CULTURE 3 cr.** Exploration of major trends in Mexican fiction, film, and music of the 20th and 21st centuries with special focus on post-revolutionary national identity, marginality, gender, migration, and drug wars.
- **432. ARABS, JEWS, AND CHRISTIANS FROM FRONTIER TO EMPIRE: MEDIEVAL SPANISH LITERATURE 3 cr.** Literary contributions of each of these cultures to the creation and development of a discourse of Spain. Works examined include *Poema de mio Cid, Milagros de Nuestra Señora, Libro de buen amor, El Conde Lucanor, Cancionero de Baena, La Celestina.*
- **434. DRAMA OF THE GOLDEN AGE 3 cr.** Development of the Spanish *comedia* in the cultural context of the Renaissance and Baroque periods.

- **435. CERVANTES 3 cr.** Study of the works of Cervantes, with special attention to the *Quijote* and the *Novelas ejemplares*.
- **436. CONTEMPORARY NARRATIVE OF ARGENTINA, CHILE, AND URUGUAY 3 cr.** Postmodern fiction and urban chronicles written in Argentina, Chile, and Uruguay in the last two decades, where the topics of exile and collective memory, marginality, gender, and violence find expression in the post-dictatorship imagination.
- **437. POETRY AND NARRATIVE OF THE GOLDEN AGE 3 cr.** Poetry; the mystics; the beginnings of the novel, with special emphasis on the picaresque.
- **462. SPANISH SHORT STORIES 3 cr.** Spanish narrative trends from the 19th, 20th, and 21st centuries. Authors include Juan Valera, Mercedes Abad, and José María Merino.
- **464. LATIN AMERICAN SHORT STORY 3 cr.** Major trends in the contemporary short story in Latin America. Selections from Horacio Quiroga, Jorge Luis Borges, Juan Rulfo, Julio Cortázar, Gabriel García Márquez, Carlos Fuentes, Isabel Allende, and others.
- **477. CONTEMPORARY SPANISH DRAMA 3 cr.** Innovative dramatic works as manifestations of issues related to Spanish society since the early 20th century: the Spanish Civil War and its effects, political repression and the quest for freedom, gender and sexuality, memory, and strategies toward artistic innovation.
- **478. CONTEMPORARY LATIN AMERICAN DRAMA 3 cr.** Reading and analysis of representative works of Latin American theatre since 1900.
- **482. NINETEENTH-CENTURY SPANISH LITERATURE 3 cr.** Readings in 19th-century poetry, prose, and drama. In-depth discussion of romanticism, realism, and naturalism.
- **484. LITERATURE OF MODERN SPAIN 3 cr.** Outstanding writers from the Generation of 1898 to the present.
- **498. ADVANCED INDEPENDENT STUDY 1-3 cr.** Supervised independent study on special topics. For advanced students. May be repeated with a different topic.
- **499. SPECIAL TOPICS 1-3 cr.** Occasional course on a selected topic announced in advance. May be repeated with a different topic.



Theology and Religious Studies (RL)

Professors: J. F. Kelly, D. K. Donnelly, P. Lauritzen, J. R. Spencer, T. L. Schubeck, S.J., S. E. McGinn (Chair), P. K. Nietupski, E. P. Hahnenberg (Jack and Mary Jane Breen Chair in Catholic Systematic Theology); *Associate Professors:* J. M. Nuth, Z. Saritoprak (Bediüzzaman Said Nursi Chair in Islamic Studies); *Pastor in Residence:* V. Lassiter; *Writer in Residence:* D. Cozzens

John Carroll University considers the study of theology and religion an integral part of a liberal education. As a Jesuit and Catholic university, John Carroll also provides the opportunity for students to choose elective courses designed to give them an understanding of their faith commensurate with their other learning. The University Core requirement in theology and religious studies is satisfied by TRS 101 and a second appropriately designated 3-credit TRS course at the 200 or 300 level.

Major and Minor Requirements

Major in Theology and Religious Studies: 36 credit hours.

One introductory course (TRS 101).

Two courses in Scripture (TRS 200, 205).

One course in the history of Christianity (TRS 220-229).

Two courses in systematic theology, one lower-division (TRS 230-239), and one upper-division (TRS 330-339, 430-439).

Two courses in world religions selected from the following:

- Judaism (TRS 210-219, 310-319)
- Islam (TRS 240-249, 340-349)
- Asian Religions (TRS 250-259, 350-359)

Two courses in religious ethics, one lower-division (TRS 260-269), and one upper-division (TRS 360-369, 460-469).

One upper-division elective (3 cr.).

Senior Seminar (TRS 493).

At least two courses must be on the 400 level; one of these is TRS 493.

A comprehensive examination is required.

Although not required, majors are strongly encouraged to study abroad.

Minor in Theology and Religious Studies: 18 credit hours.

One introductory course (TRS 101).

Three courses (9 credits), one each from three of the following areas:

- Scripture (TRS 200 or TRS 205)
- History of Christianity (TRS 220-229, 320-329)
- Systematic Theology (TRS 230-239, 330-339)
- World Religions:
 - Judaism (TRS 210-219, 310-319)
 - Islam (TRS 240-249, 340-349)
 - Asian Religions (TRS 250-259, 350-359)
 - Religious Ethics (TRS 260-269, 360-369)

One upper-division (300- or 400-level) elective (3 credits).

Senior Seminar (TRS 493).

TRS 101 is a course designed to introduce students to the academic study of theology and religion and to address several issues and topics fundamental to the field. The options for the second course allow students to continue and deepen their study of one or more of the issues and topics introduced in the first course. TRS 101 is a Prerequisite to all other courses offered in the department.

Courses at the 200 and 300 levels are open to all students except where Prerequisites are specifically stated. Course numbers indicate subject areas, not the level of difficulty of a course. The lower-division courses (200-level) involve broad surveys of a topic while upper-division courses (300-level) have more specific and limited foci. Enrollment in 400-level courses typically is restricted to TRS majors and minors; other students require the permission of the department chair.

The Department of Theology and Religious Studies offers a major and minor. The major in theology and religious studies may serve as partial fulfillment of the requirement for the certification of elementary and high school teachers of religion in the Diocese of Cleveland.

The department is privileged to offer courses with the support of several endowments: the Walter and Mary Tuohy Chair of Interreligious Studies, the Bernard Hollander Lectureship in Jewish Studies, the Louis E. and Marcia M. Emsheimer Charitable Trust Philanthropic Fund, the Bediüzzaman Said Nursi Chair in Islamic Studies, the F. J. O'Neill Charitable Corporation Fund, and the Jack and Mary Jane Breen Chair in Catholic Systematic Theology. For details on these programs, see pages 000.

Five-Year Integrated B.A./M.A. Program

The five-year integrated B.A./M.A. program in Theology and Religious Studies is designed for undergraduate theology and religious studies majors who wish to earn the master's degree with an additional year of study beyond the baccalaureate degree.

Undergraduate students majoring in theology and religious studies may apply for admission to the M.A. program in their junior year. Once accepted, they may begin taking graduate courses in their senior year in order to complete the M.A. in their fifth year. The master's degree is a 30-credit-hour program. Normally students will complete 6 graduate credits between the fall and spring of senior year, 6 credits in the summer between their fourth and fifth years, and 18 credits between the fall and spring of the fifth year. More information about this program is available on the department website: http://go.jcu.edu/trs.

Program requirements and course descriptions for the Master of Arts in Theology and Religious Studies are published in the *Graduate Studies Bulletin* and are available on the Theology and Religious Studies website.

Please Note: TRS has replaced **RL** as the designation for the Department of Theology and Religious Studies. Thus, all of the course numbers below—in their complete form—would be preceded by that designation. Where a course number has changed, the previous number appears in parentheses following the course title.

- **101. INTRODUCTION TO THEOLOGY AND RELIGIOUS STUDIES 3 cr.** Introduction to the academic study of theology and religious studies. Topics include the nature of religion; the human search for meaning; revelation; symbol, myth, and ritual; and faith as it relates to reason, experience, and morality. Introduction to the areas of scripture, theology, ethics, and non-Christian religious traditions. TRS 101 is designed to prepare students for courses at the 200 and 300 levels.
- **200. OLD TESTAMENT/HEBREW BIBLE INTRODUCTION 3 cr.** Historical and cultural environment of the Old Testament (Hebrew Bible), its nature and composition, and its religious and theological developments.
- **205. NEW TESTAMENT INTRODUCTION 3 cr.** Development and composition of the New Testament; the historical, cultural, and religious environment out of which it arose; and the various theological perspectives found within it.
- **210. INTRODUCTION TO JUDAISM (RL 250) 3 cr.** Historical overview of the development of Judaism from its biblical beginnings through the modern period, including a discussion of the major religious ideas of classical Judaism.
- **220. HISTORY OF CHRISTIANITY I 3 cr.** Christianity from its origins to 1300: earliest communities, encounter with the Roman world, establishment of Christian intellectual and artistic life, monasticism, barbarian conversions, rise of the papacy, and Gothic cathedrals.
- **222. AMERICAN CHRISTIANITY (RL 228) 3 cr.** Development of Christianity in the U.S. from the colonial times to today. Emphasis on interaction between Christianity and American culture and on the development of Roman Catholicism in the U.S. Topics include the Puritans, religious liberty, abolition, revivalism, immigration, nativism, Industrial Revolution, Catholic education, prohibition, fundamentalism, rise of the laity, and modern secularism.
- **223. AFRICAN-AMERICAN RELIGION 3 cr.** The African-American religious experience, including historical roots of African religion essential to slave Christianity, development of the institutional church, and spiritual expressions influencing African-American worship styles. Important political and social foundations of the church from which political and social organizations were created, as well as African-American theology.

- **230. CONTEMPORARY CATHOLIC THEOLOGY (RL 231) 3 cr.** Overview of Roman Catholic theological themes and issues since the Second Vatican Council (1962-65) with attention to selected areas: scripture, grace, sin, redemption, the role of Jesus, the Church, ethical norms and morality, and sacraments.
- **231. CONTEMPORARY CATHOLIC THEOLOGY: GLOBAL PERSPECTIVES (RL 231G) 3 cr.** Surveys and studies the significant contribution of the contemporary Roman Catholic tradition and, in particular, contemporary Catholic theologians, to globalization issues of economics, demography, ecology, consumerism, immigration, human trafficking, the tensions between the Vatican and the People's Republic of China, and the relationship of the Roman Catholic Church to Islam.
- **232. JESUS: HISTORICAL AND THEOLOGICAL PERSPECTIVES 3 cr.** The ways Christians have understood the person and work of Jesus. Use of scripture and tradition to illumine how those who confess him as Savior have defined him and to provide means for traditional and creative thinking about the central figure of Christian faith.
- **233. SAINTS AND SOCIETY 3 cr.** Studies the theological significance of saints in the Roman Catholic tradition. Explores the history of saints and saint-making, especially the ways in which changing historical, social, and cultural contexts impact Christian views of holiness. Topics include the origins of the cult of the saints, changing models of sanctity, ritual and devotional practices, the process and politics of canonization, and the implications of the veneration of saints for a theological treatment of God, the church, and the human person.
- **234. THEOLOGY BEHIND BARS (RL 230) 3 cr.** Focus on theological writings produced while their authors were imprisoned. These primary-source accounts reflect intense mental, spiritual, and physical anguish, at the same time expressing hope, despair, contrition, courage, solidarity, conviction, faith, purpose, and often wisdom. Many testify to the pervasive inequity of the criminal-justice system with regard to the poor.
- **238. CATECHISM OF THE CATHOLIC CHURCH 3 cr.** Overview of Roman Catholic theology based on the *Catechism of the Catholic Church* as well as a look at various themes and issues since the Second Vatican Council that find their roots and explanation in the *Catechism*. Emphasis on scripture, grace, sacraments, sin, redemption, the role of Jesus, the Magisterium, ethical norms, and morality. Offered at the Center for Pastoral Leadership.
- **240. INTRODUCTION TO ISLAM (RL 255) 3 cr.** Surveys the history of Islam, impact of Islamic belief and culture on global social and political development, and fundamental tenets and practices of Islam. Includes a modern interpretation of the Islamic tradition.
- **252. RELIGIONS OF INDIA 3 cr.** Study of interpretation of India's religions and cultures, including the discussion of methods and cultural biases in the study of foreign religions and cultures. Focus on Hinduism and Buddhism in the Indian subcontinent and how these were transmitted to other Asian countries.
- **253. CHINESE RELIGIONS 3 cr.** Confucianism, Taoism, and Buddhism. Ancient Chinese beliefs and practices, and the introduction and adaptations of Buddhism. Philosophical and cultural manifestations and the gradual development of the major Chinese religious movements up to the modern period.
- **254. JAPANESE RELIGIONS 3 cr.** Ancient Shinto beliefs; importation and modification of Korean and Chinese cultures and religions up to the modern era. Emergence of the Japanese empire in the seventh century CE, and the developments of Tendai, Kegon, Zen, and Shingon beliefs and practices.

- **260. MORAL DECISION MAKING 3 cr.** Examination of contemporary moral issues with a focus on methods for analyzing and evaluating moral problems; sources from the Christian tradition that form moral identity and ethical decisions.
- **261. AFRICAN-AMERICAN CHRISTIAN SOCIAL ETHICS (RL 264) 3 cr.** Nature, origins, and functions of African-American ethical response as related to social, political, and religious belief systems. Emphasis on historical and social translation of values dictated by African-American religion and theology. Topics include African-American social Christianity, ethical/political issues of religion, womanist ethics, and current ethical dialogues.
- **268.** CATHOLIC MORAL THEOLOGY (RL 262) 3 cr. Methods for making informed and prudential moral decisions grounded in experience, Scripture, church teaching, and rational discourse. Addresses contemporary interpersonal and social problems in light of moral theory within the Catholic tradition.
- **270. FIGUREHEADS, FOUNDERS, VISIONARIES 1-3 cr.** Focus on one or more key individuals who have influenced the historical development of one or more religions and spiritual pathways. Specific content and number of credits to be announced when offered.
- **271. CHRISTIAN SPIRITUALITY (RL 272) 3 cr.** The interior life studied from the perspective of spiritual freedom and transformation grounded in the life and teaching of Jesus. Probes the deepest longings of the heart and their relationship to human and spiritual fulfillment.
- **299. SPECIAL TOPICS 1-3 cr.** Selected topics in one of the areas of theology and religious studies. Specific content and number of credits to be announced when offered.
- **300. HISTORY OF THE ANCIENT NEAR EAST (HS 300) 3 cr.** History, culture, and religion of Egypt, Mesopotamia, and Syro-Palestine.
- **301. ARCHAEOLOGY AND THE BIBLE 3 cr.** Principles and methodologies of archaeology; examination of how archaeology broadens and informs our understanding of the world and events of the Bible.
- **306. JESUS IN FILM AND HISTORY 3 cr.** Prerequisite or corequisite: TRS 205 or equivalent. Introduction to the words and deeds of the historical Jesus of Nazareth, as understood by his contemporaries. Comparisons to how Jesus was later understood and portrayed by his followers (*e.g.*, in the New Testament) and in popular media (art, literature, and film).
- **308. HEALING IN EARLY CHRISTIANITY & THE GRECO-ROMAN WORLD 3 cr.** Exploration of the understanding of health and healing in the gospels and other early Christian traditions, and of Jesus' role as healer, in comparison to other contemporaneous Greco-Roman religious traditions (*e.g.*, Galen, the author of the most influential medical textbook in the western world, and the Asclepius cult, the world's first system of holistic medicine).
- **309. SPECIAL TOPICS IN BIBLICAL STUDIES 1-3 cr.** Selected topics relating to the Bible and biblical archaeology. Specific content and number of credits to be announced when offered.
- **315.** THE HOLOCAUST AND ITS MEANING 3 cr. Reaction of Jewish and Christian intellectuals to the Nazi attempt to destroy the Jewish people; analysis of accounts of Holocaust survivors; the singular witness of Elie Wiesel; significance of the Holocaust for Jewish-Christian dialogue.
- **319. SPECIAL TOPICS IN JEWISH STUDIES 1-3 cr.** Selected topics relating to the history, culture, faith, and practice of the Jewish people. Specific content and number of credits to be announced when offered.

- **321. HISTORY OF THE PAPACY (RL 326) 3 cr.** Origins of the papacy in the Roman world; growth of papal influence in the Early Middle Ages; decline of the papacy and rise of Protestantism; Counter Reformation; the popes and the absolute monarchs; the Enlightenment attacks; responses to European revolutions; the papacy and European totalitarianism; the papacy and the Third World; the popes and modern democratic trends.
- **322. WOMEN IN CHRISTIAN TRADITION (RL 325) 3 cr.** Lives and writings of prominent women within the Christian tradition from the viewpoint of contemporary feminist theology. Emphasis on women's contribution to theology in light of their historical contexts.
- **323.** LIFE, TIMES, AND THEOLOGY OF MARTIN LUTHER KING, JR. (RL 324) **3 cr.** Life, career, and teaching of the civil-rights leader and Christian theologian; sources of his unique theology; analysis of speeches and writings; King's relationship to thinkers such as Tillich and Gandhi; milestones of justice and peace.
- **324. HISTORY OF CHRISTMAS (RL 320) 3 cr.** Origins of the feast; gospel infancy narratives; apocryphal traditions; Christology; Christmas in Medieval art and drama; cult of Saint Nicholas; origins and growth of Christmas music; Puritan attack on the feast; decline of the feast in 18th century; impact of the Industrial Revolution; Washington Irving, Charles Dickens, and establishment of modern Christmas; modern commercialization; contemporary developments.
- **325. GOD AND RADICAL EVIL IN THE MODERN WORLD (RL 322) 3 cr.** Development of the idea of God's relation to evil from the Renaissance until today; emphasis on the changing notion of evil in response to cultural changes such as the Enlightenment and Darwinism; the demonic and the Gothic in the 19th century; modern literary, scientific, and philosophical approaches; theological responses.
- **326. HISTORY OF THE IDEA OF EVIL (RL 321) 3 cr.** Problem of evil from its biblical origins to the modern period with emphasis on the interaction between religious beliefs and cultural forces. Topics include the Book of Job, the rise of Satan, Augustine and original sin, Satan in medieval art, Dante, Milton, the Reformation, the Enlightenment, Mary Shelley, the demonic and Gothic, and modern theological and scientific approaches.
- **329. SPECIAL TOPICS IN CHRISTIAN HISTORY 1-3 cr.** Selected topics relating to the history of the Christian community in its various manifestations. Specific content and number of credits to be announced when offered.
- **330. MODELS OF GOD (RL 331) 3 cr.** Comparison of several models for understanding God and God's relations to the world. Personal models (parent, friend); the soul-body model; traditional models (monarch, being Itself); process models (cosmic lover, creator-redeemer-liberator); and the God-as-mystery model.
- **331. SIN, GRACE, AND WHOLENESS (RL 332) 3 cr.** Introduction to theological anthropology, the study of the human being in relation to God and in conflict with evil, in order to secure a doctrinal foundation for the understanding of Christian spirituality. Readings include the Jewish Scriptures, Paul, Augustine, Julian of Norwich, Thomas Aquinas, Martin Luther, the Council of Trent, Karl Rahner, and feminist and liberation theology.
- **332.** CHRISTOLOGY (RL **334**) **3 cr.** Study of the principal developments in theological reflection on the meaning and significance of Jesus Christ in the New Testament and in later church tradition; consideration of how contemporary Christology is both affected by and responds to some crucial concerns of today's culture.
- **333.** CHRIST'S BODY: THEOLOGY OF THE CHURCH (RL 335) 3 cr. Origin, nature, and mission of the Church in light of its evolution from the preaching and mission of Jesus and his disciples, through its developing history, to its current self-understanding since Vatican II.

- **334. SACRAMENTS (RL 336) 3 cr.** Introduction to the concept and nature of "sacrament" and to the historical, liturgical, and theological development of the seven sacraments, which are studied in general as well as individually. Emphasis upon sacraments of initiation (baptism, confirmation/chrismation, eucharist) with consideration of sacraments of healing (penance, healing of the sick) and of Church service/government (matrimony, holy orders). Also examines the "sacramental imagination" as a way to understand theological assumptions that play a large part in Catholic spiritual tradition.
- **335. WHAT HAPPENED AT VATICAN II 3 cr.** The Second Vatican Council as a historical, sociological, and theological event. Explores what happened at Vatican II, in particular its causes and effects in the life of the Roman Catholic Church.
- **336. AFRICAN-AMERICAN THEOLOGY (RL 323) 3 cr.** Survey of the theological foundations and systems which dominate African-American religious thought; contemporary theological issues relating to biblical ideals, liberation and justice, black feminist theology, and concepts from the African-American religious experience.
- **337. MICHELANGELO: THE ARTIST AS THEOLOGIAN (RL 330) 3 cr.** Study of seven major works of Michelangelo Buonarroti (CE 1475-1564) —the ceiling and the Last Judgement of the Sistine Chapel, The Vatican Pietà, The Rondanini Pietà, the statue of David, the Doni Tondo, and the paintings in the Pauline Chapel at the Vatican Palace—for the purpose of exploring the pre- and post-Tridentine theology reflected in these works. Attention will be paid also to other artists of the period, including Caravaggio and Del Piombo.
- **339. SPECIAL TOPICS IN SYSTEMATIC THEOLOGY 1-3 cr.** Selected problems or authors in systematic theology. Specific content and number of credits to be announced when offered.
- **341. ISLAM IN AMERICA (RL 356) 3 cr.** Introduction to the history of Islam and its arrival in the New World. Focus on the experience of American Muslims, including African-American Muslims, immigrant Muslims, and new American converts. Considers all levels of the Muslim public sphere in the U.S. and current U.S. relations with Muslim countries.
- **342. ISLAM AND THE ENVIRONMENT 3 cr.** Overview of environmental issues and Islamic approaches to these challenges based on the major sources of Islam: the Qur'an and the Hadith. Islamic principles regarding the natural world and humanity's place within it, and Islamic legal strictures to protect the environment. Special emphasis on contemporary Islamic activism to protect the natural world.
- **349. SPECIAL TOPICS IN ISLAMIC STUDIES 1-3 cr.** Selected topics relating to the Qur'an and/or the history, faith, and practice of the Muslim community. Specific content and number of credits to be announced when offered
- **350. TUOHY CHAIR (RL 385) 1-3 cr.** A holding number for courses offered by the visiting Tuohy scholar. Specific content and number of credits to be announced when offered. See the Tuohy website (http://go.jcu.edu/tuohy) for further information.
- **359. SPECIAL TOPICS IN ASIAN RELIGIONS 1-3 cr.** Selected topics relating to the religions of Asia and/or manifestations of western religions in an Asian context. Specific content and number of credits to be announced when offered.
- **361. LIBERATION ETHICS (RL 267) 3 cr.** Focus on the ethics that arose out of the moral indignation of Latin Americans, Africans, and Asians in response to injustices. This ethics begins with the concrete reality of the poor and oppressed and moves toward the transformation of persons and structures as its goal. Includes reflection on a people's experience in light of social-scientific analysis and scripture.

- **362. RELIGION, ETHICS, AND PUBLIC POLICY 3 cr.** Focus on debates about the role religion should play in the formulation of public policy in the United States. Considers works of Rawls, Hauerwas, Stout, and others.
- **364.** CHRISTIAN SEXUALITY 3 cr. Study of human sexuality, its meaning and mystery, and ethical issues related to sexual behavior and attitudes, all from a Christian perspective. Christian wisdom and wisdom of the ages in light of human experience and contemporary theories of the meaning and significance of sexuality. Special attention to the inherent relationship between spirituality and sexuality.
- **368.** CHRISTIAN SOCIAL JUSTICE 3 cr. Examination of Catholic and Protestant social teachings that contribute to a social ethics. Special focus on political, economic, and cultural problems, including war and peace, poverty, and prejudice.
- **369. SPECIAL TOPICS IN RELIGIOUS ETHICS 1-3 cr.** Selected issues or authors in religious ethics. Specific content and number of credits to be announced when offered.
- **370.** CLASSICS IN SPIRITUALITY (RL 373) 3 cr. Selected readings from the works of religious leaders with attention to historical and cultural background, theological and psychological insights, and practical application. Authors include Pseudo-Dionysius, Catherine of Siena, Ignatius of Loyola, Theresa of Avila, Evelyn Underhill, Pierre Teilhard de Chardin, and Henri Nouvwen. Specific authors to be announced when offered.
- **371. IGNATIAN SPIRITUALITY: ORIGINS AND DEVELOPMENT 3 cr.** Study of the life and writings of Ignatius Loyola and the spirituality that emerged from his religious experience, the dissemination of Ignatian spirituality across the globe through the creation of the Jesuit order, the mission and ministry of the first Jesuits, the development of Ignatian spirituality through the centuries, and its contemporary relevance.
- **372.** THEOLOGY OF AFRICAN-AMERICAN SACRED MUSIC (RL 328) 3 cr. Survey of theological issues and constructs in African-American sacred music. Musical theology of Negro spirituals as starting point in discovering expressions of biblical and societal musings. Gospel music and anthematic presentations as expressions of a basic understanding of life and being in the African-American experience.
- **373. DOROTHY DAY AND THOMAS MERTON (RL 374) 3 cr.** Study of the two most significant American Catholic writers of the 20th century, whose work has been acknowledged and praised for both its spiritual depth and prophetic witness. Focus on Day and Merton as guides for the spiritual seekers of the 21st century.
- **378.** THE FRANCISCAN MOVEMENT (RL 376) 3 cr. Franciscan movement from its origins with Francis of Assisi to its contemporary manifestations. Historical and spiritual aspects of the Franciscan phenomenon and its import for the Church today. Offered at the Center for Pastoral Leadership.
- **379. SPECIAL TOPICS IN SPIRITUALITY 1-3 cr.** Selected topics relating to the work of great spiritual leaders and/or to spiritual practices such as prayer, worship, and meditation. Specific content and number of credits to be announced when offered.
- **389. SPECIAL TOPICS IN PASTORAL/PRACTICAL THEOLOGY 1-3 cr.** Selected topics in the area of pastoral theology and ministry. Specific content and number of credits to be announced when offered.
- **399. SPECIAL TOPICS 1-3 cr.** Selected topics in one of the areas of theology and religious studies. Specific content and number of credits to be announced when offered.

- Note: Registration in all 400-level courses requires prior permission from the instructor and the department chair, except for TRS majors/minors and graduate students.
- **400. ENGAGING THE SCRIPTURES: INTRODUCTION TO BIBLICAL INTERPRETATION 3 cr.** Problems of and approaches to understanding the Jewish and Christian scriptures. Special focus on the methods essential to exegesis, biblical interpretation, and contemporary uses of the scriptures.
- **402.** LIVES ON THE MARGINS: PROPHECY IN ISRAEL AND THE ANCIENT NEAR EAST (RL 404) 3 cr. Study of prophecy and prophets in ancient Israel and its ancient Near Eastern context. Focus on such biblical prophets as Amos, Hosea, Isaiah, and Jeremiah.
- **405.** "REJECTED BOOKS" OF THE BIBLE 3 cr. Introduction to the non-canonical writings of formative Judaism and early Christianity. Intensive study of selections from the intertestamental, apocryphal, and pseudepigraphical literature of the Old and New Testaments; the Mishnaic and later Talmudic literature; and the writings of early Christian authors.
- **406. NEW TESTAMENT ETHICS FOR CONTEMPORARY CULTURE 3 cr.** Seminar centering on the ethical perspectives and prescriptions conveyed by the New Testament. The teaching and praxis of Jesus, including his concern for the poor and solidarity with the marginalized, provide the center of gravity for analysis of a cross-section of the paraenetic teaching and ethical traditions in the New Testament. Students develop sophisticated tools for understanding the New Testament's contribution to contemporary ethical debates.
- **408. PAUL OF TARSUS: RABBI OR REVOLUTIONARY? 3 cr.** Introduction to the cultural and historical background of the life and career of the Apostle Paul, examination of his major writings, writings in the Pauline traditions, their impact in their original historical-cultural settings, and uses of these texts in other settings today.
- **420. THE RISE OF CHRISTIANITY 3 cr.** Emergence of Christianity into the Greco-Roman world during the first six centuries. Key topics include: establishment of Trinitarian theology and Christology; relations of Church and State; roles of women; origins of monasticism; interaction with pagan culture; establishment of ecclesiastical structures; early Christian art; major figures (Constantine, Athanasius, Augustine); and the Church's growing self-understanding.
- **421. CRADLE OF CHRISTIANITY: EARLY CHRISTIANITY IN SYRIA & ASIA MINOR 3 cr.** Exploration of the rise of Christianity in the Roman provinces of Syria and Asia Minor (modern Turkey) through study of the literature and sites most significant to this development. Begins with the early events and texts associated with Damascus and Antioch, and traces the route of Christian development from northern Palestine through Syria, Cappadocia, and Anatolia, to the coastal city of Ephesus, the "metropolis of Asia." Often done "on location" in conjunction with a study tour of Syria, Turkey, and/or Greece.
- **422. AUGUSTINE: LIFE, THEOLOGY, INFLUENCE 3 cr.** Introduction to Augustine of Hippo (CE 354-431), a magisterial figure in the history of Christian thought who remains significant for contemporary Christianity. Topics include Augustine's views of early church and state, marriage and sexuality, original sin, and freedom of the will.
- **430. INTRODUCTION TO SYSTEMATIC THEOLOGY 3 cr.** Consideration of key concepts necessary for understanding how theology works: faith, revelation, scripture, symbol, tradition, community, and method. Exploration of how these concepts work in the writings of a few significant theologians. Placement of these thinkers within their historical and cultural worlds, in order to help students reflect on what it means to do theology out of their own unique commitments, contexts, and life experiences.

- **431. READINGS IN FEMINIST THEOLOGY (RL 437) 3 cr.** Exploration of the way in which the feminist movement has affected the articulation of Christian doctrine through a reading and analysis of the works of contemporary feminist theologians. Includes a survey of feminist theory from the late 18th century to the present.
- **450. FAITHS OF ABRAHAM: JUDAISM, CHRISTIANITY, AND ISLAM 3 cr.** Crosscultural approach to the study of Judaism, Christianity, and Islam, all of which claim Abraham, the Biblical patriarch, as their "father in faith." Uses American and selected international religious communities as case studies.
- **451. PILGRIMAGE (RL 452) 3 cr.** Study of the phenomenon of pilgrimage as a unifying theme in the study of world religions and as a key component of religious life. Isolates the theme of pilgrimage and considers it as a perspective on the unity of spirit, mind, and body as an expression of the inseparability of individuals and larger religious communities. Uses pilgrimage as a point of departure for investigations of symbols, rituals, myths, laws, doctrines, faiths, and visions manifested in world religions.
- **461. JUSTICE AND THE ECONOMY (RL 466) 3 cr.** Teamtaught interdisciplinary seminar on the relationship between economic and ethical choices and their implications. Basic economic and theologicalethical frameworks for decision making; case studies.
- **471. THEOLOGY OF RELIGIOUS EXPERIENCE (RL 474) 3 cr.** Study of the authentic and inauthentic manifestations of religious experience and the biblically-based criteria that might be applied to validate Christian religious experience. Draws on the theoretical readings of Jonathan Edwards, William James, Rufus Jones, and Evelyn Underhill and the recorded experiences of Dionysius the Areopagite, Meister Eckhart, John of the Cross, Elizabeth of the Trinity, and Simone Weil.
- **491. INTERNSHIP 1-4 cr.** Prerequisites: permission of department chair and instructor. An internship/practicum experience in the field(s) of ministry, religious studies, and/or theology. Involves supervised work at a religious-affiliated institution or agency engaged in direct service to and/or advocacy in the Cleveland community. Each student is placed in an institutional context best suited to individual skills and interests, receives on-the-job mentoring, and engages in guided theological and spiritual reflection through a written journal and weekly seminar discussions.
- **492. INDEPENDENT STUDY 1-3 cr.** Prerequisites: permission of department chair and instructor. In-depth study on a tutorial basis of a particular problem, approved by the chair and directed by a member of the department. A paper is required.
- **493. SENIOR SEMINAR 3 cr.** Prerequisite: permission of department chair. Capstone seminar for TRS majors and minors. Normally taught in fall. Specific topic to be announced when offered.
- **494. THE CATHOLIC EXPERIENCE (RL 399) 3 cr.** Prerequisite: permission of department chair. Capstone seminar for students in the Catholic Studies program. Normally taught in spring semester. Specific topic to be announced when offered.
- **498. BORROMEO SENIOR SEMINAR (RL 496) 1-3 cr.** Prerequisite: permission of department chair. Synthesis of four years of collegiate priestly formation. Offered at the Center for Pastoral Leadership.
- **499. SPECIAL TOPICS 1-3 cr.** Selected topics in one of the areas of theology and religious studies. Specific content and number of credits to be announced when offered.

Women's and Gender Studies (WG)

Program Director: K. M. Gatto (Classical and Modern Languages and Cultures); Advisory Committee: M. E. Beadle (Communication and Theatre Arts); S. Casciani (Classical and Modern Languages and Cultures); M. A. Eng (Philosophy); G. Compton-Engle (Classical and Modern Languages and Cultures); K. L. Gygli (Communication and Theatre Arts); S. O. Long (Sociology and Criminology); J. M. McAndrew (History); G. Lacueva (Physics); P. A. Mason (Political Science); M. Moroney (English); J. M. Nuth (Theology and Religious Studies); M. Pereszlenyi-Pinter (Classical and Modern Languages and Cultures); D. J. Rosenthal (English); D. Taylor (Philosophy); B. A. Wirkus (Philosophy); S. D. Young (Psychology)

The program in Women's and Gender Studies enables students of any discipline to familiarize themselves with a vast body of knowledge that has historically been neglected: the ways in which social structures—including gender, sexuality, race, and class—affect the lived experience primarily of women, but also of men. All women's and gender studies courses at John Carroll University have as their basis:

- the examination of diversity and the consequences of unequal power and opportunity.
- the examination of sex-based inequities as they affect primarily women of all classes, races, and sexual and ethnic identifications.
- the examination of issues of social justice and human dignity from a global perspective.
- the creation of strategies for critiquing and changing the existing status of women.
- the encouragement for students to integrate these strategies into their lives.



Major and Minor Requirements

Major in WG: 36 credit hours. WG 101, 301, and 450 are required. 27 additional hours, i.e., nine additional courses, are required and are to be distributed as follows: 9 hours (three courses) from the humanities, 9 hours (three courses) from the social sciences, including psychology, and 9 hours (three courses) from the list of approved WG courses. At least nine of these additional hours must be at the 300 or 400 level.

Minor in WG: 18 credit hours. WG 101, 301, and 450 are required. Nine additional hours, i.e., three additional courses, are required and are to be selected from the list of approved WG courses. No more than two of these additional courses may be from the same discipline. Normally, at least one will be from the humanities and one from the social sciences.

Please see the program web page (http://sites.jcu.edu/womensstudies/) for the most current listing of approved courses. The specific courses required may change depending upon the course offerings of other departments.

- **101. INTRODUCTION TO WOMEN'S AND GENDER STUDIES 3 cr.** Introduction to the interdisciplinary field of women's and gender studies and its scholarship. Texts and films address issues such as patriarchy, sexism, homophobia, racism, bodies and sexuality, poverty, families, violence, and resistance.
- **299. SPECIAL TOPICS 1-3 cr.** Selected topic in Women's and Gender Studies announced in advance. May be repeated with a different topic.
- **301. SEX AND GENDER IN A GLOBAL CONTEXT 3 cr.** Explores analyses of women and gender from non-American and non-European perspectives. The geographical scope spans Latin America, Africa, India, South Asia, Australia, and the Middle East. Topics include a crosscultural analysis of the construction of sex and gender around the world, the intersection of global sexism and racism, postcolonial and transnational feminisms, and cross-cultural feminist political theories and epistemology.
- **450.** WOMEN'S AND GENDER STUDIES CAPSTONE: INTEGRATING THEORY AND PRACTICE 3 cr. Uses interdisciplinary and intersectional frameworks to explore theories that articulate and define principles of feminism; subsequent application of these theories to the discussion of practical issues of concern to women, e.g., violence, poverty, war, economic justice, sexuality, and body image.

Endowed Centers, Chairs, Professorships, and Lectureships

Endowed Centers

The Edward M. Muldoon Center for Entrepreneurship

The Edward M. Muldoon Center for Entrepreneurship was created in 1999 with a gift from Mr. Muldoon, a 1948 John Carroll graduate, and a matching gift from the Boler Challenge Fund, to establish a permanent home for the entrepreneurship program of the University. The Muldoon Center's objective is to educate, connect, and enrich people who are entrepreneurs or are interested in entrepreneurship.

The center supervises the minor in entrepreneurship, which was developed with the assistance of the Burton D. Morgan Foundation to leapfrog other entrepreneurship programs by adopting "best practices" from the top programs in the country. According to national statistics, 75% of all entrepreneurs today started as arts and sciences majors. Reflecting that, more than 75% of the instructors in the minor at John Carroll are arts and sciences faculty.

The center also offers students, regardless of their major, a unique series of opportunities to utilize their academic skills in a real-world setting. These programs allow students to develop their ideas, work with and learn from business owners, and participate in competitions both on our campus and through the eleven schools of the Entrepreneurship Education Consortium.

In addition, the center provides support for the Entrepreneurs Association, a group of private company business owners and professionals who support them. The EA provides members with the opportunity to network, attend professional development programs, and assist with student co-curricular programming.

For additional information, visit: www.jcu.edu/muldoon.

Endowed Chairs

The Edward J. and Louise E. Mellen Chair in Finance

The Bediüzzaman Said Nursi Chair in Islamic Studies was established in 2003, as an integral part of the Department of Theology and Religious Studies, in order to enhance the intellectual life of John Carroll University through the teaching of courses on Islam and Islamic culture. Such intellectual enrichment is part of John Carroll's mission as a Jesuit, Catholic university. Named in honor of Bediüzzaman Said Nursi (1879-1960), a prominent Islamic scholar from Turkey, the Nursi Chair arose from

Endowed Centers, Chairs, Professorships, and Lectureships

the gracious gift of two Turkish businessmen and other members of the Muslim and Turkish communities of Cleveland.

The primary goals of the Nursi Chair are (1) to foster a better understanding of Islam and Islamic theological traditions among the students of John Carroll University and, secondarily, among the other members of the John Carroll community, residents of the greater Cleveland area, and various national and international audiences; and (2) to promote dialogue on issues pertaining to Islam among the various members of the John Carroll University community, with other residents of the greater Cleveland area, and with wider national and international audiences. Key strategies by which the Chair achieves these goals include:

- 1. Offering undergraduate and graduate courses on the religion of Islam, and on themes relating to Islamic spirituality and culture.
- Promoting curriculum development in areas relating to Islam and Islamic culture.
- 3. Contributing to the discipline of Islamic theology through research, publication, and professional activities.
- 4. Creating curricular and co-curricular opportunities such as study abroad programs in Islamic countries.
- 5. Hosting activities expressive of the theology, spirituality, and culture of Islam.
- 6. Sponsoring national and international conferences on issues related to Islam.
- 7. Offering other opportunities for dialogue on issues pertaining to Islam among students, faculty, staff, and administrators at John Carroll University, and among the greater Cleveland community
- 8. Promoting interreligious dialogue between Islam and other religious traditions.
- 9. Maintaining regional and worldwide connections through speaking engagements, professional associations, special projects, and consultations.

The inaugural holder of the Nursi Chair is Dr. Zeki Saritoprak.

The Edward J. and Louise E. Mellen Chair in Finance

The Mellen Chair was established in September 1984, with the commitment of a gift for the Boler School of Business as a part of the University's Centennial Campaign. The chair challenges and encourages the faculty of the Boler School to achieve new levels of excellence in teaching, research, and service so that the school remains in the forefront of business education. The service component is oriented towards the establishment and enhancement of academic-business relationships and cooperation.

The Mellen Chair in Finance is held by an individual who has a recognized national reputation in research and teaching, and the demonstrated ability and experience to work effectively with business and professional leaders as well as faculty colleagues. Previous holders of the chair have been Dr. Michael G. Ferri and Dr. Raj Aggarwal. The current chairholder is Dr. LeRoy Brooks.

Raymond and Eleanor Smiley Endowed Chair in Business Ethics

The Raymond and Eleanor Smiley Endowed Chair in Business Ethics in the Boler School, established in 2012, is intended to ensure that tomorrow's leaders have a strong foundation in business ethics and the tools to confront and navigate ethical challenges in the business world. The chairholder teaches business ethics classes at the undergraduate and graduate levels and brings together accomplished business and not-for-profit professionals, faculty, and students to engage in conversations related to business and ethics. In addition, the chairholder organizes conferences and symposia to assist business leaders, students, and faculty in gaining special insight into the challenges of ethical and moral leadership in today's business world.

The Walter and Mary Tuohy Chair of Interreligious Studies

The Walter and Mary Tuohy Chair of Interreligious Studies was founded in 1966 in honor of the late Walter Tuohy—a dedicated Catholic layman, active member of the National Conference of Christians and Jews, and zealous promoter of religious understanding—and his wife Mary. Established as an integral part of the Department of Theology and Religious Studies, the goal of the Tuohy Chair is to enhance the mission of John Carroll University by fostering interreligious dialogue among members of the University community, with other residents of the greater Cleveland area, and with wider national and international audiences. Key strategies by which the Chair achieves this goal include:

- 1. Bringing to campus distinguished scholars of the major religious traditions to dialogue with students, faculty, religious leaders, and the general public, *via* a series of lectures, free and open to the public.
- 2. Sponsoring courses, open to both undergraduates and graduate students, on interreligious topics.
- 3. Sponsoring occasional lectures in the area of interreligious dialogue.
- Making the Tuohy lectures available to the public through print and on-line media.

Past Tuohy Chair lecturers have included such major figures in theological scholarship as John Cobb, David Tracy, Theodore Stephanopoulos, Thomas Hopko, Demetrios Constantelos, Anglican Bishop R. C. P. Hanson, Michael A. Fahey, S.J., Martin McNamara, M.S.C., William H. C. Frend, Roderick A. F. Mackenzie, S.J., W. Norman Pittenger, Sophie Laws, Robert Eno, S.S., Fredrick W. Norris, Rabbi Arthur J. Lelyveld, Brian Daly, S.J., Charles S. McCoy, Joseph T. Lienhard, S.J., Alastair Campbell, Maria Harris, Francis Clooney, S.J., John Haughey, S.J., James Keenan, S.J., Diana L. Hayes, Robin Jensen, John Kelsay, William J. Harmless, S.J., Sidney H. Griffith, S.J., Joseph A. Bracken, S.J., Paul Heck, Anne Clifford, C.S.J., Kelley E. Spoerl, George M. Smiga, William S. Campbell, Thomas Michel, S.J., and David Barr.

For more information about the Tuohy Chair and its programs, see the website at http://go.jcu.edu/Tuohy.

The Edmund F. Miller, S.J., Chair in Classics

The Miller Chair, endowed originally by a \$1.5 million grant from the F. J. O'Neill Charitable Trust, honors the memory of Edmund F. Miller, S.J., who was rector of the John Carroll University Jesuit Community, associate professor of classical languages, and a trustee of the University. The study of the classical tradition and the humanistic values it represents has always occupied a prominent role in Jesuit education. The Miller Chair brings an established Jesuit scholar to campus to further this tradition through teaching and research. Past holders of the chair have been Roland J. Teske, S.J., Robert J. O'Connell, S.J., James N. Loughran, S.J., Arthur R. Madigan, S.J., Gary M. Gurtler, S.J., David H. Gill, S.J., Gregory I. Carlson, S.J., and Claude Pavur, S.J.

The Wasmer Chair in American Values

In 1977, Mr. and Mrs. John C. Wasmer, Sr., endowed the Wasmer Chair in American Values. Their interest in the chair is carried on by their sons, Jack '45 and George '58, and their families. The chair supports research and academic activities in the Boler School of Business, particularly those focused on the American free enterprise system and business ethics. The Boler School's Wasmer Fellows, Wasmer Outstanding Teaching Award, and Wasmer Summer Grants are supported through this endowment.

The Don Shula Chair of Philosophy

The study of philosophy is central to Jesuit higher education. John Carroll graduates regularly testify to the shaping influence philosophy has had on their lives. Through lectures, seminars, courses, research, and related activities, the Shula Program in Philosophy, directed by the Don Shula Chair, encourages John Carroll students to question, examine, and formulate values, and to respond ethically to important issues that will confront them now and in the course of their lives and careers. Previous holders of the Shula Chair include Dr. Robert Sweeney, Dr. Brenda Wirkus, and Dr. Mariana J. Ortega. The current holder is Dr. Dianna Taylor.

The John J. Kahl, Sr., Chair in Entrepreneurship

The John J. Kahl, Sr., Chair in Entrepreneurship in the Boler School of Business supports a faculty member's teaching and research on the various aspects of entrepreneurship. The holder of the Kahl Chair develops and conducts the academic side of entrepreneurship at the University and works closely with the Muldoon Center for Entrepreneurship to connect the members of the Entrepreneurs Association with faculty members and students.

The Kahl Chair was funded in 1998 through a \$1 million gift from 1962 alumnus Jack Kahl, Jr., founder and former CEO of Manco, Inc., currently ShurTech, and a matching gift from the Boler Challenge Fund. The chair is named for John J. Kahl, Sr., father of Jack Kahl, Jr. Past holders of the chair have been Dr. Dianne H. B. Welsh and Dr. John C. Soper.

The Standard Products—Dr. James S. Reid Chair in Management

Endowed by the Reid Family, the Standard Products Company, its foundation, and other friends, The Standard Products—Dr. James S. Reid Chair in Management provides support to a tenured professor or associate professor in the Department of Management, Marketing, and Logistics in the Boler School of Business. The chair emphasizes quality issues and innovative business practices to prepare students for leadership roles in business. The chairholder's research focuses on these issues to enhance the academic reputation of the Boler School and, as part of the service component of the chair, to assist local firms and organizations seeking to revitalize industry in Northeastern Ohio. Past holders of the chair have been Drs. Mark D. Treleven, Marian M. Extejt, Paul R. Murphy, Jr., Charles A. Watts, J. Benjamin Forbes, and Nathan Hartman. The current chair is Dr. Bradley Z. Hull.

The John G. and Mary Jane Breen Chair in Catholic Studies

This chair is funded out of the endowment created by John G. and Mary Jane Breen for the Institute of Catholic Studies, which was initiated in 1997. It is intended to support the director of the institute for his organizational leadership and vision, teaching of courses related to the concentration in Catholic studies, and ongoing scholarship on the Catholic intellectual legacy. The current holder of the chair is Dr. Paul V. Murphy, Vice President for University Mission and Identity.

The Jack and Mary Jane Breen Chair in Catholic Systematic Theology

The Jack and Mary Jane Breen Chair was established in 2011, as an integral part of the Department of Theology and Religious Studies, through a generous endowment gift from Jack and Mary Jane Breen, alumni of John Carroll University. The Breen Chair enhances the Jesuit and Catholic mission of John Carroll University by supporting the continued teaching and publication of Catholic systematic theology. The goal of the Breen Chair is to foster a better understanding of the Catholic theological tradition primarily among John Carroll students and, secondarily, among the other members of the John Carroll community, residents of the greater Cleveland area, and various national and international audiences. Key strategies by which the Chair achieves these goals include:

- 1. Offering undergraduate and graduate courses in Catholic systematic theology.
- 2. Supporting curricular development in the area of Catholic systematic theology.
- 3. Contributing to the discipline of Catholic systematic theology through research, publication, and professional activities.
- 4. Collaborating with various entities on campus to promote the mission of John Carroll University.
- 5. Sponsoring campus programs that engage the Catholic theological tradition.
- 6. Maintaining regional and worldwide connections through speaking engagements, professional associations, special projects, and consultations.

The inaugural holder of the Breen Chair is Dr. Edward P. Hahnenberg.

Endowed Professorships

The KPMG Professorship in Accountancy

This professorship in accountancy, established in 1990 by the international public accounting firm of KPMG LLP (formerly Peat Marwick), provides support to a tenured professor or associate professor in the Department of Accountancy. The professorship seeks to expand student and community awareness and knowledge of issues in finance and accounting through excellence in teaching, research, and service. Previous KPMG professors were Dr. Richard Fleischman, Dr. Lawrence P. Kalbers, Dr. Roland L. Madison, Dr. William Cenker, Dr. Karen Schuele, and Dr. Albert Nagy. The current KPMG professor is Dr. Robert Bloom.

The Gerard Manley Hopkins Professorship in British Literature

Named for the nineteenth-century Jesuit, a significant figure in British poetry, the Gerard Manley Hopkins Professorship in British Literature enables the University to support programs and host visiting scholars and writers who teach, offer public lectures and readings, and work to inspire faculty, students, and the community. The professorship is endowed through the generosity of the late Leland and Helen Schubert with matching support from the Boler Challenge Fund. Its intent is to enrich the undergraduate and graduate programs of the Department of English, foster interdisciplinary endeavors, and bring greater national visibility to the department and the University. The first Hopkins Professor in British Literature was Dr. Willy Maley. Other holders of the chair have been Dr. Duncan Wu, Dr. Oliver Plunkett Rafferty, S.J., Dr. David Attwell, Dr. Matthew Pateman, Dr. Derek Cohen, poet Mary Morrissy, novelist Nino Ricci, and playwright Fatima Dike. Hopkins funds have also been used to bring to campus Actors from the London Stage, a troupe of actors that performs Shakespeare's plays. Since 2011, the professorship has been occupied jointly by actor and film writer Robert Smith and Dr. Thomas P. Roche, a Spenser scholar.

Endowed Lectureships and Selected Awards Bernard Hollander Lectureship in Jewish Studies

The Bernard Hollander Lectureship in Jewish Studies was established in 1976, as an integral part of the Department of Theology and religious Studies, in order to enhance the intellectual life of John Carroll University through the teaching of courses on Judaism and Judaica. Such intellectual enrichment is part of John Carroll University's mission as a Jesuit, Catholic university. Sponsored by the Jewish Chautauqua Society and made possible by a gift in memory of Bernard Hollander, the primary goal of the Hollander Lectureship is to foster a better understanding of Judaism and Jewish theological traditions among the undergraduates of John Carroll University and, secondarily, among the other members of the John Carroll University community. The primary strategy by which the lectureship achieves this goal is by offering undergraduate courses on Judaism, the Holocaust, and other themes relating

to Jewish history and culture. Past holders of the lectureship include Rabbis Philip Horowitz, Stuart Geller, and Arthur J. Lelyveld. The current Hollander Lecturer is Rabbi Michael Oppenheimer.

Louis E. and Marcia M. Emsheimer Charitable Trust Philanthropic Fund

Courses in Jewish studies offered by the Department of Theology and Religious Studies are supported in part by the Louis E. and Marcia M. Emsheimer Charitable Trust Philanthropic Fund of the Jewish Community Federation of Cleveland.

Kahl Endowment for Internationalization of the Curriculum

Funded through a gift of \$500,000 from Jack Kahl '62, founder of Manco, Inc., and a member of the John Carroll Board of Directors, the Kahl Endowment supports faculty travel related to the internationalization of the curriculum. Since its establishment in 1994, the endowment has enabled faculty members to visit destinations around the globe for the purpose of creating courses with an international theme or of incorporating an international dimension into preexisting courses. Applications must include a letter of support from the faculty member's department chair and approval from the appropriate dean. Guidelines for interested faculty are available from the Office of the Provost and Academic Vice President.

Mulwick Scholars

The Mulwick Scholars program, established in 2008, recognizes superior scholars in the Boler School of Business at John Carroll University. Faculty selected as Mulwick Scholars are so designated based on a history of consistent high-quality research productivity and anticipated future superior research output. The Mulwick Scholars program is funded through a gift from the Mulwick Estate.

Wasmer Fellows

The Wasmer Fellows program recognizes faculty members in the Boler School of Business at John Carroll University who consistently perform at an above average level in the areas of teaching, research, and service. Faculty selected as Wasmer Fellows are so designated based on a history of consistently strong performance as a contributing citizen of the Boler School of Business and John Carroll University communities. The Wasmer Fellows program was established in 2008 and is funded through the Wasmer endowment.

Philanthropic Gifts

Philanthropic gifts are essential financial support for the distinctive programs of John Carroll University. The University welcomes charitable gifts from alumni, parents, friends, corporations, and foundations to enhance the quality of academic programs and enrich the learning environment.

Unrestricted and Restricted Gifts

The education of each student is significantly subsidized, even those paying full tuition. The University provides over \$45 million annually in institutional grant and scholarship assistance. Because tuition does not cover the full costs of the John Carroll learning experience, the University relies on the generosity of benefactors.

Gifts to the Carroll Fund are unrestricted and allow University leaders to apply resources where they are needed most. These gifts keep the University responsive to new opportunities and are applied to a wide range of services that contribute to a more effective learning environment, including career counseling, academic programs, technology, health care, and student life.

Restricted gifts are designated by the donor for specific areas such as an academic program, scholarships, student services, spiritual life program, building improvements, or other defined interest. Usually restricted gifts are spent on a specific project as they are received.

Endowments Gifts

Gifts can be made to establish an endowment. The endowment funds are invested, and a portion of the interest is used to support scholarships, programs, faculty work, or a specific area designated by the donor. These gifts are in perpetuity. More information is available from the Office of University Advancement.

Bequests

John Carroll University benefits greatly from benefactors who remember the University in their estate plans, trusts, and wills. Bequests can be made by including the following statement in a new will or in a simple amendment to an existing will.



Dr. Anne Kugler, Professor of History Recipient of the Distinguished Faculty Award for 2013

Faculty Awards

The Distinguished Faculty Award

Established in 1969, the Distinguished Faculty Award is the highest honor that John Carroll University can bestow on a member of its faculty. It is presented annually to a full-time faculty member selected by the University community for excellence in classroom teaching, scholarship, advisement and leadership of students, and community concern. The individual chosen to receive the award receives a cash prize and an engraved plaque presented at commencement ceremonies. Holders of the award since 1982 have been:

1982	Dr. Edward J. Walter	1998	Dr. Robert D. Sweeney
1983	Dr. Joseph B. Miller	1999	Dr. Klaus Fritsch
1984	Dr. William H. Nichols, S.J.	2000	Dr. Robert H. Getscher
1985	Mr. Leone J. Marinello	2001	Rev. Thomas L. Schubeck, S.J.
1986	Dr. Cyrilla H. Wideman	2002	Dr. Paul R. Murphy, Jr.
1987	Dr. David M. La Guardia	2003	Dr. Miles M. Coburn
1988	Dr. Duane A. Dukes	2004	Dr. Jeanne M. Colleran
1989	Dr. Thomas M. Tomasic	2005	Dr. Andrew M. Welki
1990	Dr. Nick R. Baumgartner	2006	Dr. Christopher Faiver
1991	Dr. John R. Spencer	2007	Dr. Paul J. Lauritzen
1992	Dr. Joseph T. Bombelles	2008	Dr. George Bilgere
1993	Dr. Joseph Trivisonno, Jr.	2009	Dr. Phyllis Braudy Harris
1994	Dr. Marian J. Morton	2010	Dr. Elizabeth v. Swenson
1995	Dr. Raj Aggarwal	2011	Dr. John S. McBratney
1996	Dr. Richard K. Fleischman, Jr.	2012	Dr. Brenda Wirkus
1997	Dr. Joseph F. Kelly	2013	Dr. Anne Kugler

Lucrezia Culicchia Award for Teaching Excellence

The Lucrezia Culicchia Award, established to recognize teaching excellence, is awarded annually to a member of the faculty of the College of Arts and Sciences.

1990	Dr. Janet D. Larsen	2002	Mr. Anthony L. Palermo
1991	Dr. Harry C. Nash	2003	Dr. Barbara K. D'Ambrosia
1992	Mr. Jerry L. Moreno	2004	Dr. Margaret O. Finucane
1993	Dr. David M. La Guardia	2005	Dr. Mariana J. Ortega
1994	Dr. Heidi I. Stull	2006	Dr. Mark J. Waner
1995	Dr. Jeanne M. Colleran	2007	Dr. James Lissemore
1996	Dr. Valerie R. Flechtner	2008	Dr. Chris Roark
1997	Dr. Brenda A. Wirkus	2009	Dr. Maryclaire Moroney
1998	Dr. Carl R. Spitznagel	2010	Dr. K. Julia Karolle-Berg
1999	Dr. Patrick J. Mooney	2011	Dr. Michael A. Nichols
2000	Dr. Marian J. Morton	2012	Dr. Philip J. Metres, III
2001	Dr. Katherine M. Gatto	2013	Dr. Mindy Peden

Wasmer Outstanding Teaching Award

The Wasmer Award, established to recognize teaching excellence, is awarded annually to a member of the faculty of the Boler School of Business. Past recipients include:

1992	Dr. Andrew M. Welki	2002	Dr. Andrew M. Welki
1993	Dr. Marian M. Extejt	2003	Dr. Walter O. Simmons
1994	Dr. Marc Lynn	2004	Dr. James H. Martin
1995	Dr. Marilynn Collins	2006	Dr. Gerald P. Weinstein
1996	Dr. Donald R. Domm	2007	Dr. Scott Moore
1997	Dr. Andrew M. Welki	2008	Dr. Andrew M. Welki
1998	Dr. Susan H. Higgins	2009	Dr. Lindsay N. Calkins
1999	Dr. William N. Bockanic	2010	Dr. Paul Murphy, Jr.
2000	Dr. Marc Lynn	2011	Dr. Frank J. Navratil
2001	Dr. Charles A. Watts	2012	Dr. Robert Bloom

George E. Grauel Faculty Fellowships

To encourage research and writing, the University annually awards faculty fellowships providing leave for work on special projects. The fellowships honor the memory of Dr. George E. Grauel, who served John Carroll from 1933 until his death in 1967. Dr. Grauel was professor of English, dean of the Evening College, and director of Institutional Planning. Recipients of fellowships since 2009 have been:

2009-2010

Dr. Jeanne Colleran	Dr. Anne Kugler
Dr. Doris Donnelly	Dr. Man Lung Kwan
Dr. Rebecca Drenovsky	Dr. Maryclaire Moroney
Dr. Nathan Hartman	Dr. Antonio Perez-Romero
Dr. Simran Kahai	Dr. Gloria Vaguera

2010-2011

Dr. Matt Berg	Dr. Philip Metres
Dr. Paul Challen	Dr. Roger Purdy
Dr. Sharon Kaye	Dr. Hélène Sanko
Dr. Joseph Kelly	Dr. Walter Simmons
Dr. Sheila McGinn	Dr. Earl Spurgin

2011-2012

Dr. Carl Anthony	Dr. Thomas Nevin
Dr. Gerald Guest	Dr. Mariana Ortega

2012-2013

Dr. Denise Ben-Porath	Dr. Daniel Palmer
Dr. Jeffrey Dyck	Dr. Debby Rosenthal
Dr. James Lissemore	Dr. Christopher Sheil
Dr. Malia McAndrew	Dr. Wendy Wiedenhoft-Murphy

2013-2014

Dr. Scott Allen	Dr. David Mascotti
Dr. Medora Barnes	Dr. Naveed Piracha
Dr. Carrie Buchanan	Dr. Catherine Rosemary
Dr. Santa Casciani	Dr. Linda Seiter
Dr. Michael Eng	Dr. Yi Shang
Dr. Jeffrey Johansen	Dr. Peifang Tian
Dr. Erin Johnson	

Curtis W. Miles Faculty Award for Community Service

The Miles Award recognizes a member of the faculty for distinguished community service consistent with the mission and goals of John Carroll University. Originally established in 1992, the award was revived in 2005.

1992	Dr. John C. Soper	2007	Dr. Richard D. Clark
1993	Dr. Mark E. Diffenderfer	2008	Dr. Jeanne Colleran
1994	Dr. Lauren L. Bowen	2009	Dr. Ruth Fenske
1996	Mr. Wilhelm Bartsch	2010	Dr. Paula Britton
1997	Dr. Sally H. Wertheim	2011	Dr. Brent Brossman
1998	Dr. Gerald P. Weinstein	2012	Dr. Gloria Vaquera
2005	Dr. Sharon M. Kaye	2013	Dr. Linda Seiter
2006	Dr. Margaret O. Finucane		



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- Donna L. Byrnes, M.A., Associate Dean of Students

- Maryellen Callanan, B.S., Associate Director, Center for Service and Social Action
- Cynthia Caporella, Ph.D., Director of Liturgical Music and Musical Arts
- John Carfagno, M.B.A., Assistant Vice President, Integrated Marketing and Communication
- Lord Edwin Carreon, M.A., Assistant Director, Residence Life
- Danielle J. Carter, M.A., *Director,*Center for Student Diversity and
 Inclusion
- Patrick Caruso, M.S., Communications Coordinator, Student Affairs
- Santa Casciani, Ph.D., Director, Bishop Anthony M. Pilla Program in Italian American Studies
- Tonya Strong-Charles, B.A., *Director, Media Relations/Communication*
- John Clifford, CPA, M.A.FIS., Controller
- Joan Coyne, M.B.A., Assistant Dean, Graduate Business Programs
- Fr. Donald Cozzens, Ph.D., Writer in Residence
- Kenneth Danton, Assistant Director, Legal Affairs
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- Kelly Diamond, B.A., Assistant Director, Enrollment
- Carol P. Dietz, M.S.E., Associate Vice President of Facilities
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- Rebecca A. Dinnen, B.A., *Director, Transfer & Int'l Admission*

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- Michelle Feinberg, M.N.O., Manager, Special Events
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- Elizabeth Fisher-Pai, B.A.,

 Accreditation/Assessment

 Administrator, Department of

 Education and Allied Studies
- Yat Lai Fong, M.B.A., Assistant Director, International Student Recruitment
- Timothy Freeman, B.A., *Director of Major Gifts*
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- Carla Gall, B.A., Reunion Coordinator Elizabeth Gardella, Call Center Coordinator
- Allison Garmon, B.A., *Admission Counselor*
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- Susan Geyman, B.S., *Coordinator, Enrollment*
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- John R. Stankiewicz, B.S., Senior Systems Engineer
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- John Walsh, B.A., *University Editor/ Director of Publications*
- Diane M. Ward, B.F.A., J.D.,

 Bursar and Director of Student

 Accounts
- Claudia Wenzel, B.A., *Director, Financial Assistance*
- Allison West, Ed.S., *Director, Services* for Students with Disabilities
- Catherine Wheeler, M.S., Coordinator, Biology Laboratory

- Faith A. Whitworth, M.A.T.,

 Laboratory Coordinator, Department of Chemistry
- William B. Wilhelm, Telecommunications Specialist
- Kristen L. Willis, I.I.D.A., *Planning* and *Implementation*
- David W. Wong, B.S., CPA, Executive Director, Academic Finance
- Hans T. Wrage, M.S., Teaching and Research Support Technician, Physics
- Jeffrey A. Your, C.S.M.M., M.B.A., Science Buyer; Central Scientific Stores and Laboratory Support Services
- Charles M. Zarobila, Ph.D., Curator of Special Collections, Grasselli Library Amy Zucca, M.S., Assistant Registrar

Athletic Administration and Coaching Staff

- Tom Arth, B.A., *Head Coach, Football* Erin Brooks, B.A., *Head Coach, Softball*
- Brian Cochran, M.Ed., Assistant Coach, Football
- Michael Cook, Special Teams Coach Rachel Dell Gondek, M.S.Ed., Head Coach, Women's Lacrosse
- Jane Evans, B.A., Assistant Director, Recruiting
- Courtney Farver, M.Ed., *Director, Recreation and Intramurals*
- Dara Ford, B.A., *Head Coach, Cross Country and Track*
- Danny Hollowell, Facility and Equipment Manager, Football
- Laura Jensen, Head Coach, Volleyball
- Michael Marich, B.S., *Head Coach, Women's Soccer*
- Laurie J. Massa, M.Ed., Senior Director of Athletics
- Donald J. McPhillips, M.S., A.T.C./L., Head Athletic Trainer

- Phillip Miller, M.S., Facility and Equipment Manager
- Michael J. Moran, B.S.B.A., Head Coach, Men's Basketball/Golf
- Timothy Robertson, M.S., *Strength/ Conditioning Coach*
- Brian Small, B.A., *Head Coach, Men's Lacrosse*
- Paul Spicuzza, Assistant Athletic Trainer
- Brandon Staley, *Defensive Coordinator*Marc N. Thibeault, B.S., *Head Coach*, *Baseball; Assistant Intramural Director*
- Kerry R. Volkmann, M.Ed., *Head*Coach, Wrestling; Assistant Coach,
 Football
- Gretchen Weitbrecht, M.A., Associate Director of Athletics
- Christopher Wenzler, B.A., *Director, Communication/Sports Information*
- Thomas Zagorski, Football Assistant, Special Teams Coordinator

Committees*

University Committees

Athletic Committee
Committee of Academic Deans
Committee on Graduate Studies
Committee on Research and Service
Committee on Retirement and
Allowances
Committee on Scheduling
Council on Teacher Education
Faculty Board of Review Pool
Faculty Grievance Committee Pool
Faculty Handbook Committee
First Year Seminar Committee
Health Professions Advisory Committee

Information Technology Steering
Committee
Institutional Animal Care and Use
Committee
Institutional Review Board
Mission Coordinating Committee
Provost's Council
University Budget Committee
University Core Curriculum Committee
University Hearing Board
University Library Committee
University Planning Group
Web Management Committee

Faculty Council Committees

Committee on Academic Policies
Committee on Elections
Committee on Enrollment, Financial
Aid, and Student Life
Committee on Finance, Faculty
Compensation, and Work-Related
Policies

Committee on Gender and Diversity Committee on Rank, Tenure, and Promotion Committee on Research, Service, and Faculty Development

*For information about the membership of specific committees, please consult the website of the Faculty Council (www.jcu.edu/fc/).



Retired Faculty

(Dates in parentheses indicate years of appointment and retirement.)

- *LUCIEN A. AUBÉ (1950-90)

 Professor Emeritus of French
 Ph.D., Case Western Reserve
 University
- *FRANCIS V. BALDO (1958-69)

 Assistant Professor of Transportation
 M.B.A., Western Reserve University
- KATHLEEN L. BARBER (1968-89)

 Professor Emerita of Political Science
 Ph.D., Case Western Reserve
 University
- NICK R. BAUMGARTNER (1969-2012) Professor Emeritus of Chemistry Ph.D., University of Wyoming
- MARGARET BERRY (1965-89) Professor Emerita of English Ph.D., St. John's University
- *HENRY F. BIRKENHAUER, S.J. (1946-80)

 Professor of Mathematics;

 President of the University, 1970-80

 Ph.D., St. Louis University;

 LL.D., John Carroll University
- ROBERT C. BOHINSKI (1966-2001) Professor Emeritus of Chemistry Ph.D., Pennsylvania State University
- *JOSEPH T. BOMBELLES (1963-98) Professor Emeritus of Economics Ph.D., Western Reserve University
- ROBERT A. BRUENING (1963-2006)

 Associate Professor of Communication
 Ph.D., Case Western Reserve
 University
- JOSEPH BUCKLEY (1961-2006) Professor Emeritus of Philosophy Ph.D., University of Notre Dame
- *Deceased

- EDWARD F. CAROME (1954-2000)

 Professor Emeritus of Physics
 Ph.D., Case Institute of Technology
- EMMANUEL M. CARREIRA, S.J. (1975-2002)

 Special Visiting Assistant Professor of Physics
 Ph.D., The Catholic University of America
- VERGHESE J. CHIRAYATH (1970-2004) Associate Professor Emeritus of Sociology Ph.D., Cornell University
- *ROBERT CORRIGAN (1949-87)

 Professor Emeritus of Spanish

 Ph.D., Western Reserve University
- THOMAS J. COYNE (1981-95)

 Professor of Finance
 Ph.D., Western Reserve University
- *JOHN V. CZERAPOWICZ (1966-2004)

 Professor of Political Science
 Ph.D., Indiana University
- JAMES L. DAGUE (1972-2000)

 Associate Professor of Education
 Ed.D., The University of Akron
- SUSAN H. DeFAGO (1989-2012)

 Associate Professor of Marketing
 Ph.D., Kent State University
- *WILLIAM DEIGHAN (1988-98)

 Associate Professor Emeritus of

 Education

 Ph.D., Case Western Reserve

 University
- ERNEST M. DeZOLT (1989-2012) Associate Professor Emeritus of Sociology Ph.D., Kent State University

- ANDRES C. DIAZ (1965-83)

 Associate Professor of Spanish
 LL.D., University of Havana
- DONALD R. DOMM (1987-2008)

 Professor of Management
 Ph.D., The Ohio State University
- *GORMAN L. DUFFETT (1992-2004) Director Emeritus, Grasselli Library Ph.D., University of Pittsburgh
- PATRICK L. EAGAN (1978-98)

 Associate Professor of Political
 Science
 Ph.D., University of CaliforniaRiverside
- CHRISTOPHER M. FAIVER
 (1989-2010)

 Professor Emeritus of Education;
 Coordinator, Community Counseling
 Program
 Ph.D., Case Western Reserve
 University
- ALEXANDER M. FELDVEBEL (1969-87)

 Professor Emeritus of Education Ph.D., University of Chicago
- RUTH E. FENSKE (1995-2012)

 Associate Librarian Emerita, Grasselli
 Library
 Ph.D., University of Michigan
- *CHARLES FERRARO (1949-78)

 Professor Emeritus of Psychology
 Ph.D., Western Reserve University
- VALERIE R. FLECHTNER (1981-2008)

 Professor Emeritus of Biology
 Ph.D., University of WisconsinMadison
- RICHARD K. FLEISCHMAN, Jr. (1983-2007)

 Professor Emeritus of Accountancy
 Ph.D., State University of New York at
 Buffalo

- J. BENJAMIN FORBES (1975-2008)

 Professor Emeritus of Management
 Ph.D., The University of Akron
- *AUSTIN J. FREELEY (1957-85)

 Professor Emeritus of Communication
 Ph.D., Northwestern University
- FREDERICK J. FUGLISTER (1986-2011) Associate Professor Emeritus of Mathematics Ph.D., Harvard University
- KLAUS FRITSCH (1967-2007)

 Professor Emeritus of Physics
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- KATHLEEN S. KOBYLJANEC (2002-2013) Associate Librarian, Grasselli Library J.D., Cleveland State University
- RICHARD J. GAUL (1959-94)

 Professor Emeritus of Chemistry

 Ph.D., Massachusetts Institute of
 Technology
- ROBERT H. GETSCHER (1970-2001) Professor Emeritus of Art History Ph.D., Western Reserve University
- EDWARD GLYNN, S.J. (1998-2005)

 Professor of Religious Studies;

 President of the University, 1998-2005

 Th.D., Graduate Theological Union
- SONIA S. GOLD (1967-1983)

 Professor of Economics
 Ph.D., University of Pittsburgh
- JOHN GUIDUBALDI (1994-2004) Professor of Education D.Ed., Harvard University
- GERALD C. HAY, Jr. (1964-94)

 Professor of Philosophy
 Ph.D., The Catholic University
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- *FRANK J. HEINTZ, Jr. (1956-90)

 Professor of Political Science
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- RICHARD HENDRICKSON (2001-13)

 Associate Professor of Communication
 Ph.D., Bowling Green State University
- DAVID HELSEL (1994-2008)

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- *DARRELL J. HORWATH (1970-2007)

 Assistant Professor Emeritus of

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- MARY K. HOWARD (1963-98)

 Professor Emerita of History
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- *DOMINIC J. HUNT (1957-86)

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 Assistant Professor of Mathematics
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 Associate Professor Emeritus of

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 Ed.D., Columbia University
- PATRICIA A. KEARNEY (1967-99)

 Professor Emerita of Education
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- JOHN D. KESHOCK (1960-2000) Professor Emeritus of Psychology Ph.D., Case Western Reserve University
- GWENDOLYN M. KINEBREW (1995-2011) Associate Professor of Biology Ph.D., Temple University

- JOHN F. KLEIN (1970-2006)

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- WALLACE J. KOSINSKI (1966-94)

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 Classical Languages

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^{*}Deceased

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Professor of Communication B.S.S., John Carroll University; M.A, Ohio University; Ph.D., Case Western Reserve University Instructor, 1961-68; Assistant Professor, 1968-75; Director, Summer & Inter-Term Sessions, 1971-74; Acting Chair, 1971-72; Chair, 1972-84; Associate Professor, 1975-80; Professor, 1980-; Assistant Dean, Arts and Sciences, 1984-85; Associate Dean, 1985-93, 1994-95, 1996-2006; Dean, The Graduate School, 1993-94, 1995-96; Coordinator of Research, 1993-94, 1995-96; Acting Chair, Department of Physics, 2000-2002; Acting Chair, Department of Philosophy, 2005; Director, 2006-13

MICHELLE MILLET

Director, Grasselli Library and Breen Learning Center B.A., M.A., Florida Atlantic University Director, 2013-

NAMRATA MITRA

Visiting Assistant Professor of Philosophy B.A., St. Stephen's College (India); M.A., Jadavpur University (India); Ph.D., Purdue University Visiting Assistant Professor, 2012-

PATRICK J. MOONEY

Assistant Professor of Philosophy B.A., Carroll College; M.A., Ph.D., University of Wisconsin-Madison Instructor, 1995-96; Assistant Professor, 1996-

SCOTT B. MOORE

Assistant Professor of Finance B.S., Ball State University; Ph.D., University of Kentucky Assistant Professor, 1986-

Associate Professor of English;

MARYCLAIRE MORONEY

Associate Dean, College of Arts and Sciences
B.A., College of William and Mary;
M.A., Ph.D., Harvard University
Assistant Professor, 1991-97;
Associate Professor, 1997-; Associate
Dean, 2011-

ANNIE MOSES

Assistant Professor of Education B.A., University of Notre Dame; Ph.D., Michigan State University Assistant Professor, 2009-

HELEN M. MURPHY

Professor of Psychology B.S., Notre Dame College; M.S., John Carroll University; Ph.D., Illinois Institute of Technology Assistant Professor, 1969-74; Associate Professor, 1974-79; Professor, 1979-

PAUL R. MURPHY, Jr.

Professor of Marketing
B.A., University of Notre Dame;
M.B.A., Ph.D., University of Maryland
Assistant Professor, 1987-91;
Associate Professor, 1991-96;
Professor, 1996-; Standard ProductsReid Professor, 1998-2001

PAUL V. MURPHY

Vice President for University Mission and Identity; John G. and Mary Jane Breen Chair in Catholic Studies; Professor of History; Director, Institute of Catholic Studies

B.A., Fairfield University; M.A.,
Loyola University Chicago; M.Div.,
Weston School of Theology; Ph.D.,
University of Toronto
Associate Professor, 2005-2010; Breen Chair, 2005-; Director, 2005-; Assistant to the President; 2010-2012; Professor, 2010-; Vice President, 2012-

ALBERT L. NAGY

Professor of Accountancy
B.S.B.A., Bowling Green State
University; M.Acc., Ph.D., University
of Tennessee; CPA (Ohio)
Assistant Professor, 1999-2004;
Associate Professor, 2004-09;
Professor, 2009-

KEIKO NAKANO

Assistant Professor of Japanese; Director, East Asian Studies B.A., Tsuda College (Japan); M.A., John Carroll University Visiting Instructor, 1991-96; 1998-2013; Assistant Professor, 2013-; Director, 2013-

FRANK J. NAVRATIL

Professor of Economics and Finance B.S., Iowa State University; M.A., Ph.D., University of Notre Dame Assistant Professor, 1973-78; Chair, 1975-85; Associate Professor, 1978-84; Professor, 1984-; Dean, Boler School of Business, 1985-2005

THOMAS R. NEVIN

Professor of Classical Studies
B.A., University of Colorado; M.A.,
Ph.D., University of WisconsinMadison
Visiting Assistant Professor, 1980-85;
Assistant Professor, 1985-88; Director,
1985-90; Associate Professor, 1988-95;
Professor, 1995-

MICHAEL A. NICHOLS

Associate Professor of Chemistry
B.S., Clarion University of
Pennsylvania; Ph.D., Duke University
Assistant Professor, 1994-2000;
Associate Professor, 2000-

ROBERT L. NIEHOFF, S.J.

President of the University
B.A., Gonzaga University; M.Div.,
S.T.M., Jesuit School of Theology
at Berkeley; M.B.A., University
of Washington; Ph.D., Gonzaga
University
President, 2005-

PAUL K. NIETUPSKI

Professor of Theology and Religious Studies

B.A., University of Massachusetts; M.A., University of Washington; M.Phil., Ph.D., Columbia University Assistant Professor, 1993-99; Associate Professor, 1999-2008; Professor, 2008-

TAMBA NLANDU

Associate Professor of Philosophy B.A., University of Lubumbaski (D.R. Congo); Ph.D., Tulane University Assistant Professor, 2000-2006; Associate Professor, 2006-

DOUGLAS A. NORRIS

Associate Professor of Mathematics B.S., Adrian College; M.S., Ph.D., University of Notre Dame Assistant Professor, 1983-90; Associate Professor, 1990-; Chair, 2003-10

JOAN M. NUTH

Associate Professor of Religious Studies; Director, Ignatian Spirituality Institute B.A., Neumann College; M.Div., Weston School of Theology; Ph.D., Boston College Instructor, 1987; Assistant Professor, 1988-93; Associate Professor, 1993-; Director, 2003-

ALISSA M. NUTTING

Assistant Professor of English B.A., University of Florida; M.F.A., University of Alabama; Ph.D., University of Nevada Assistant Professor, 2011-

MARIANA J. ORTEGA

Professor of Philosophy B.A., Scripps College; M.A., Ph.D., University of California-San Diego Instructor, 1995-96; Assistant Professor, 1996-2001; Associate Professor, 2001-07; Professor, 2007-; Shula Chair, 2008-2012

THOMAS PACE

Assistant Professor of English B.A., M.A., University of Louisville; Ph.D., Miami University Instructor, 2002-03; Assistant Professor, 2003-

DANIEL W. PALMER

Professor of Computer Science B.S., State University of New York at Albany; M.S., Ph.D., University of North Carolina at Chapel Hill Instructor, 1995-96; Assistant Professor, 1996-2001; Associate Professor, 2001-06; Professor, 2006-

MINDY J. PEDEN

Associate Professor of Political Science B.A., University of Massachusetts, Amherst; M.A., Ph.D., Cornell University Assistant Professor, 2003-09; Associate Professor, 2009-; Associate Dean, 2009-2011

MARTHA PERESZLENYI-PINTER

Associate Professor of French and Chair, Department of Classical and Modern Languages and Cultures B.A., Cleveland State University; M.A., Ph.D., The Ohio State University Assistant Professor, 1991-2005; Associate Professor, 2005-; Chair, 2009-

ANTONIO PÉREZ-ROMERO

Associate Professor of Spanish B.A., M.A., Ph.D., University of Toronto Assistant Professor, 1992-98; Associate Professor, 1998-

NAVEED K. PIRACHA

Associate Professor of Physics M.S., M.Phil., Ph.D., Quiad-I-Azam University (Pakistan) Visiting Assistant Professor, 2002-04; Assistant Professor, 2004-10; Associate Professor, 2010-

ROGER W. PURDY

Associate Professor of History B.A., M.L.S., Brigham Young University; Ph.D., University of California-Santa Barbara Assistant Professor, 1988-93; Associate Professor, 1993-

DAVID W. RAINEY

Professor of Psychology B.A., Ohio University; M.A., University of Denver; Ph.D., The Ohio State University Assistant Professor, 1984-88; Associate Professor, 1988-97; Professor, 1997-

JOHN L. RAUSCH

Associate Professor of Education B.S., M.Ed., Ph.D., Kent State University Assistant Professor, 2001-07; Associate Professor, 2007-

LUKE READER

Visiting Assistant Professor of History B.A., University of Dundee, United Kingdom; M.A., California State University; Ph.D., University of California, Irvine Visiting Assistant Professor, 2013-

PAIGE E. RINKER

Assistant Professor of Mathematics B.A., Kalamazoo College; M.A., Ph.D., Dartmouth College Assistant Professor, 2011-

CATHERINE A. ROSEMARY

Professor of Education and Interim Chair, Department of Education and Allied Studies B.S., University of Delaware; M.S., Marywood College; Ph.D., University of Virginia Assistant Professor, 1997-2002; Associate Professor, 2002-08; Director, 2002-2010; Professor, 2008-; Interim Chair, 2011-

DEBRA J. ROSENTHAL

Associate Professor of English B.A., University of Pennsylvania; M.A., Ph.D., Princeton University Assistant Professor, 1998-2004; Associate Professor, 2004-

KATHLEEN A. ROSKOS

Professor of Education B.S.Ed., University of Wisconsin-Stevens Point; M.S.Ed., University of Wisconsin-Milwaukee; Ph.D., Kent State University Assistant Professor, 1987-92; Associate Professor, 1992-96; Chair, 1992-2000; Professor, 1996-

GERALD J. SABO, S.J.

Associate Professor of Slavic Languages B.A., Fairfield University; M.Div., Weston School of Theology; M.Phil., Ph.D., Yale University Assistant Professor, 1981-89; Associate Professor, 1989-

HÉLÈNE N. SANKO

Professor of French
Certificats de Licence ès Lettres in
French, Russian Literature, Romance
and Slavic Philology, Phonetics and
Linguistics, Sorbonne; Diploma, École
Nationale des Langues Orientales
Vivantes (France); M.A., Ph.D., Case
Western Reserve University
Instructor, 1963-67; Assistant
Professor, 1968-73; Associate
Professor, 1973-93; Professor, 1993-

RALPH A. SAPORITO

Assistant Professor of Biology B.S., Ph.D., Florida International University Assistant Professor, 2010-

ZEKI SARITOPRAK

Bediüzzaman Said Nursi Chair in Islamic Studies; Associate Professor of Theology and Religious Studies B.A., M.A., Ph.D., The University of Marmara (Turkey) Visiting Assistant Professor, 2002-03; Assistant Professor, 2003-07; Nursi Chair, 2003-; Associate Professor,

JACQUELINE J. SCHMIDT

2007-

Professor of Communication; Interim Director, Entrepreneurship B.A., Macalester College; M.A.,Ph.D., University of Iowa Assistant Professor, 1973-78; Associate Professor, 1978-2000; Chair, 1984-99; Professor, 2000-; Interim Director, 2011-

THOMAS L. SCHUBECK, S.J.

1995-99; Professor, 2001-

Studies
B.A., Loyola University of Chicago;
M.S., University of Detroit; M.A.,
Bellarmine School of Theology; Ph.D.,
University of Southern California
Assistant Professor, 1989-94;
Associate Professor, 1994-2001; Chair,

Professor of Theology and Religious

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Professor of Accountancy; Dean, Boler School of Business
B.S., Case Western Reserve
University; M.P.A., University of
Texas; Ph.D., Kent State University;
CPA (Ohio)
Visiting Instructor, 1984-86; 89-91;
Assistant Professor, 1991-2000;
Associate Professor, 2000-2010;
Interim Associate Dean, 2005-07;
Acting Dean, 2007; Dean, 2007-;
Professor, 2010-

LINDA M. SEITER

Associate Professor of Computer Science B.S., M.S. Ph.D., Northeastern University Assistant Professor, 2003-09; Associate Professor, 2009-

MICHAEL P. SETTER

Assistant Professor and Chair, Department of Chemistry B.S., Rose-Hulman Institute of Technology; Ph.D., Arizona State University Visiting Assistant Professor, 1999-2000; Assistant Professor, 2000-; Chair, 2010-

YI SHANG

Assistant Professor of Education B.A., Beijing (Peking) University; M.A., Boston University; M.A., Ph.D., Boston College Instructor, 2009-2010; Assistant Professor, 2010-

CHRISTOPHER A. SHEIL

Associate Professor of Biology B.Sc., Ph.D., University of Kansas Assistant Professor, 2003-2008; Associate Professor, 2008-

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Professor of Mathematics and Chair, Department of Mathematics and Computer Science B.S., John Carroll University; M.S., Ph.D., Northwestern University Assistant Professor, 1985-90; Associate Professor, 1990-2000; Professor, 2000-; Chair, 2011-

LISA M. SHOAF

Assistant Professor of Education B.S., The Ohio State University; M.Ed., Ph.D., Kent State University Assistant Professor, 2002-

THOMAS SHORT

Professor of Mathematics B.S., John Carroll University; M.S., Ph.D., Carnegie Mellon University Professor, 2008-

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Associate Professor of Education B.A., M.A., Ph.D., University of Wisconsin-Madison Assistant Professor, 2000-2005; Associate Professor, 2005-

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Professor of Economics and Chair, Department of Economics and Finance B.S., Oakwood College; M.S., Ph.D., Wayne State University Visiting Assistant Professor, 1995-98; Assistant Professor, 1998-2004; Associate Professor, 2004-; Chair, 2006-; Professor, 2009-

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President and Executive Assistant to the President B.A., Wofford College; M.S., Ph.D., University of Georgia; M.Div., Emory University Assistant Professor, 1985-89; Associate Professor, 1989-94; Professor, 1994-; Chair, 2002-07; Executive Assistant, 2007-; Vice President, 2008-

Professor of Management; Vice

ANDREAS SOBISCH

Associate Professor of Political Science; Director, Center for Global Education B.S., Georgia College; M.A., Ph.D., Emory University Assistant Professor, 1990-98; Associate Professor, 1998-; Director, 2005-

JOHN R. SPENCER

Professor of Theology and Religious Studies
B.S., University of California-Berkeley; B.D., M.A., Pacific School of Religion; M.A., Ph.D., University of Chicago
Assistant Professor, 1977-83;
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Associate Professor, 1977-85, Associate Professor, 1983-99; Director, 1990-2005; Professor, 1999-; Interim Chair, 2007-08; Chair, 2008-2012

CARL R. SPITZNAGEL

Professor of Mathematics B.A., College of the Holy Cross; M.S., Ph.D., University of Kentucky Assistant Professor, 1972-77; Associate Professor, 1977-90; Chair, 1987-95; Professor, 1990-

EARL W. SPURGIN

Professor of Philosophy; Director, Center for Applied Ethics B.A., M.A., University of Oklahoma; Ph.D., University of North Carolina at Chapel Hill Assistant Professor, 1995-2001; Associate Professor, 2001-06; Chair, 2005-2007; Professor, 2006-; Director, 2007-10; 2010-

JAYME STAYER, S.J.

Assistant Professor of English B.A., University of Notre Dame; M.Div., Boston College; M.A., Ph.D., The University of Toledo Visiting Assistant Professor, 2008-10; Assistant Professor, 2013-

DAVID L. STENSON

Associate Professor of Mathematics B.S., John Carroll University; M.A., Ph.D., University of Massachusetts Assistant Professor, 1972-77; Associate Professor, 1977-

ALAN R. STEPHENSON

Professor of Communication B.A., M.A., State University of New York at Albany; Ph.D., The Ohio State University Associate Professor, 1985-2002; Professor, 2002-

ELIZABETH A. STILES

Associate Professor of Political Science; Director, Nonprofit Administration Program B.A., University of North Carolina at Chapel Hill; M.P.A., North Carolina State University; Ph.D., Emory University Instructor, 2001-02; Assistant Professor, 2002-07; Associate Professor, 2007-; Director, 2008-

MARK G. STORZ

Associate Professor of Education; Associate Dean for Graduate Studies, College of Arts and Sciences B.A., Manhattan College; M.S., Syracuse University; M.A., Eastern Michigan University; Ph.D., Cleveland State University Assistant Professor, 1998-2004; Associate Professor, 2004-; Associate Dean, 2008-

COLIN D. SWEARINGEN

Assistant Professor of Political Science B.A., Grove City College; M.A., Ph.D., University of Oklahoma Assistant Professor, 2012-

ELIZABETH v. SWENSON

Professor of Psychology
B.S., Tufts University; M.A., Ph.D.,
Case Western Reserve University; J.D.,
Cleveland State University
Assistant Professor, 1976-89; Chair,
1978-86; Associate Professor, 1980-85;
Professor, 1985-; Dean, Student Career
Development, 1989-96

DIANNA TAYLOR

Don Shula Chair; Associate Professor and Chair; Department of Philosophy B.S.B.A., Appalachian State University; M.A., University of Cincinnati; Ph.D., State University of New York at Binghamton Assistant Professor, 2001-07; Associate Professor, 2007-; Interim Chair, 2007-09; Chair, 2009-; Shula Chair, 2012-

NANCY P. TAYLOR

Assistant Professor of Education B.A., St. Joseph College; M.A., Marquette University; Ph.D., Kent State University Assistant Professor, 2000-

MEGAN L. THORNTON

Assistant Professor of Spanish B.A., Ph.D., University of Kansas; M.A., University of New Mexico Assistant Professor, 2010-

PEIFANG TIAN

Assistant Professor of Physics B.S., M.S., Tsinghua University (China); Ph.D., Princeton University Assistant Professor, 2009-

MARK D. TRELEVEN

Associate Professor of Management B.B.A., M.B.A., University of Wisconsin-Oshkosh; Ph.D., University of North Carolina at Chapel Hill Associate Professor, 1989-; Standard Products-Reid Professor, 1989-94

PAMELA VANDERZALM

Assistant Professor of Biology
A.B., Washington University in St.
Louis; Ph.D., University of California-Berkeley
Assistant Professor, 2013-

GLORIA VAQUERA

Associate Professor of Sociology B.A., Western Michigan University; M.A., Ph.D., University of New Mexico Assistant Professor, 2004-10; Associate Professor, 2010-

MARK J. WANER

Associate Professor of Chemistry; Director, The Woodrow Wilson Ohio Teaching Fellowship Program B.S., John Carroll University; M.S., Ph.D., Michigan State University Assistant Professor, 1999-2008; Associate Professor, 2008-; Director, Faculty Development, 2010-11; Director, Wilson Fellowship Program, 2011-

CHARLES A. WATTS

Professor of Management B.S.B.A., M.B.A., Bowling Green State University; D.B.A., Indiana University Visiting Associate Professor, 1996-97; Associate Professor, 1997-2001; Professor, 2001-; Standard Products-Reid Chair, 2001-04

MARIAH WEBINGER

Assistant Professor of Accountancy B.S.B.A., M.Ac., University of Nebraska at Omaha; Ph.D., University of Nebraska-Lincoln Assistant Professor, 2009-

GERALD P. WEINSTEIN

Professor and Chair, Department of Accountancy
B.S.B.A., M.Ac., Bowling Green State University; Ph.D., Kent State University; CPA (Ohio) Visiting Instructor, 1981-83; Assistant Professor, 1988-99; Associate Professor, 1999-2008; Professor, 2008-; Chair, 2002-

ANDREW M. WELKI

Associate Professor of Economics B.A., Wilkes College; Ph.D., Pennsylvania State University Assistant Professor, 1982-2006; Program Director, Cleveland Center for Economic Education, 1989-94; Associate Professor, 2006-; Interim Assistant Dean, 2006-07

CYRILLA H. WIDEMAN

Professor of Biology B.S., Notre Dame College; M.S., University of Notre Dame; Ph.D., Illinois Institute of Technology Associate Professor, 1972-77; Professor, 1977-

WENDY A. WIEDENHOFT-MURPHY

Associate Professor of Sociology
B.A., Marquette University; M.A.,
University of Wisconsin-Milwaukee;
Ph.D., University of Maryland-College
Park
Assistant Professor, 2003-09;
Associate Professor, 2009-

BRENDA A. WIRKUS

Professor of Philosophy; Director, Humanities

B.A., Georgetown University; M.A., Cleveland State University; Ph.D., University of Ottawa
Visiting Assistant Professor, 1983-87; Assistant Professor, 1987-92; Associate Professor, 1992-2005; Chair, 1997-2003; Shula Chair, 2004-08; Professor, 2005-; Director, 2011-

JOHN H. YOST

Associate Professor of Psychology B.A., Temple University; M.A., Ph.D., Washington University Assistant Professor, 1995-2001; Associate Professor, 2001-

SHERI D. YOUNG

Assistant Professor and Chair,
Department of Psychology
B.S., Youngstown State University;
M.A., Ph.D., Case Western Reserve
University
Assistant Professor, 1995-; Chair,
2010-

JIE ZHANG

Associate Librarian
B.A., Chongqing University (China);
M.A., M.Int'l. Mng., Whitworth
College; M.S., University of North
Texas
Assistant Librarian, 1998-2004;
Associate Librarian, 2004-

JEN ZIEMKE

Assistant Professor of Political Science B.A., University of Michigan; M.A., Ph.D., University of Wisconsin-Madison Assistant Professor, 2008-

THOMAS J. ZLATOPER

Professor of Economics
B.A., Boston College; M.A., Ph.D.,
Northwestern University
Assistant Professor, 1984-88;
Associate Professor, 1988-97; Chair,
1994-99, 2001-2002; Professor, 1997-;
Dean, The Graduate School, 19992001; Interim Dean, Boler School of
Business, 2005-06

In Memoriam

We remember John Carroll faculty who passed away while serving the University since the publication of the 2011-13 *Undergraduate Bulletin*.

CHRIS R. ROARK

Associate Professor of English B.A., Lafayette College; M.A., Ph.D., State University of New York at Buffalo Assistant Professor, 1990-96; Associate Professor, 1996-2012; Chair, 2003-07



Adjunct Faculty and Lecturers

Adjunct Faculty

(Rev.) GERALD BEDNAR

Adjunct Instructor of Philosophy Ph.D., Fordham University

(Rev.) PHILIP J. BERNIER, O.F.M. Cap.

Adjunct Instructor of Theology and Religious Studies

M.Div., The Catholic University of America

JOHN BURKE

Adjunct Associate Professor of Economics Ph.D., University of Notre Dame

(Rev.) DONALD B. COZZENS

Adjunct Professor of Theology and Religious Studies Ph.D., Kent State University

(Rev.) DONALD H. DUNSON

Adjunct Assistant Professor of Theology and Religious Studies Ph.D., Catholic University of Louvain

CHAD ENGELLAND

Adjunct Assistant Professor of Philosophy Ph.D., The Catholic University of America

(Rev.) DAMIAN FERENCE

Adjunct Instructor in Theology and Religious Studies M.A., M.Div., St. Mary Seminary

RICHARD L. HANSLER

Adjunct Professor of Physics Ph.D., The Ohio State University

MARK KRIEGER

Adjunct Instructor in Communication M.A., Cleveland State University

(Rev.) MARK A. LATCOVI CH

Adjunct Associate Professor of Theology and Religious Studies; President/Rector, Borromeo Seminary Ph.D., Case Western Reserve Univ. (Rev.) JOHN LOYA

Adjunct Instructor in Theology and Religious Studies M.Div., St. Mary Seminary

(Rev.) ROBERT LOUIS McCREARY,

O.F.M. Cap.

Adjunct Instructor in Philosophy Th.D., Gregorian University

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Adjunct Assistant Professor of Physical Education and Exercise Science M.S., Ohio University

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Adjunct Assistant Professor of Communication M.F.A., Ohio University

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Adjunct Associate Professor of Theology and Religious Studies M.A., John Carroll University

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FAITH WHITWORTH

Adjunct Instructor in Chemistry M.A.T., Kent State University

Lecturers—Spring 2013

CHANTAL AKERIB, Ph.D. Biology

GERALD ANDERSON, Ph.D. Economics and Finance

LAURA ANFANG, M.Ed.

Education and Allied Studies

GAIL ARNOFF, M.A.

English

ANTHONY AVENI, M.B.A./CFA Economics and Finance

SUSAN BARKETT, M.A.

Classical and Modern Languages

MARY BECKER, Ph.D.

Economics and Finance

VINCENT BENANDER, M.S.

Mathematics and Computer Science

RICHARD BLAMER, M.B.A.

Management, Marketing and Logistics

TRACEY BONFIELD, Ph.D.

Biology

ALAN BRAUN, M.A.

Education and Allied Studies

JUDITH BRENNEKE, Ph.D.

Economics and Finance

KAREN BROER, Ph.D.

Education and Allied Studies

ROBERT BRUCE, Ph.D.

English

YVONNE BRUCE, Ph.D.

English

JOHN BURKE, Ph.D.

Economics and Finance

AARON BURKLE, M.S.

History

JAMES BURRINGTON, Ph.D.

Chemistry

TIMOTHY CABLE, M.A.

Classical and Modern Languages

ELEANORE CALLAHAN, M.Ed. Education and Allied Studies

STEPHEN CANFIELD, M.A.

English

PAUL CANIS, Ph.D.

Philosophy

IAN CARLSTROM, Ph.D.

Philosophy

JOAN CARNEY, B.A.

Theology and Religious Studies

JUDITH CETINA, Ph.D.

Theology and Religious Studies

MAN-LIH CHAI, M.A.

Classical and Modern Languages

CHERYL ANN CHASE-CARMICHAEL, Ph.D.

Psychology

CAROLINE CHESEBROUGH, Ph.D.

Education and Allied Studies

DAVID CLIFFORD, M.A.

Entrepreneurship

NANCY CONRADY, Ph.D.

Classical and Modern Languages

TORI CORDIANO, Ph.D.

Education and Allied Studies

JOHANNAH CROSS, M.Ed.

Education and Allied Studies

RAND CURTISS, M.B.A.

Economics and Finance

DONALD DAILEY, B.S.B.A./CPA

Accountancy

DAVID DAVIS, M.A.

Communication and Theatre Arts

JASON DAVIS, Ph.D.

Political Science

MONA DeBAZ, M.A.

Political Science

PAUL DITCHEY, M.A.

Communication and Theatre Arts

CLAUDIA DORIA CAPUANO, M.A.

Classical and Modern Languages

NANCY DUKES, M.A.

Sociology and Criminology

SUSAN KAY DUNLAP, Ph.D.

Education and Allied Studies

SHANNON EDWARDS, M.A.

Theology and Religious Studies

AMANDA ENGLISH, M.B.A./CPA

Accountancy

TIMOTHY EVANS, M.A.

Education and Allied Studies

CHRISTOPHER FAIVER, Ph.D.

Education and Allied Studies

CONCEPCION FAJARDO-HOPKINS,

M.A.

Classical and Modern Languages

ALICIA FERNANDEZ-RIOS, M.A. Classical and Modern Languages

MICHELLE FOWLER, M.Ed. Education and Allied Studies

JULIE FRIEDMAN, M.F.A.

Art History

MARTIN FRIEDMAN, Ph.D.

Communication and Theatre Arts

OTIS GOODEN, M.A.

Economics and Finance

GEORGE GOODRICH, B.S.B.A./CPA Accountancy

LAURA GREENWALD, M.B.A. English

RICHARD HAGEN, M.Ed.

Education and Allied Studies

ROXANNE HALL, M.A.

Communication and Theatre Arts

JANE HALLISY, M.Ed.

Education and Allied Studies

JOHN HANNON, M.A.

Communication and Theatre Arts

STEVEN HARF, M.A.

Management, Marketing and Logistics

JANE HARRIS, M.Ed.

Education and Allied Studies

GERALD HECKLER, D.C.

Education and Allied Studies

MARK HEIFERLING, M.S./M.B.A. Entrepreneurship

DAVID HEINTZ, M.A.

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DAVID HELSEL, Ph.D.

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JUAN HERNANDEZ, J.D.

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CARI HICKERSON, Ph.D.

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MICHELE HICKS, M.A.

Management, Marketing, and Logistics

JAMES HIGHLAND, Ph.D.

Philosophy

KATIE HOROWITZ, Ph.D.

English

MICHAEL HOUSEHOLDER, Ph.D.

English

RAMEZ ISLAMBOULI, M.A.

History

KALOYAN IVANOV, Ph.D.

Biology

DENISE KADILAK, M.A.

English

SUSAN KATZ, M.Ed.

Education and Allied Studies

THERESE KEARY, Ph.D.

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CAT KENNEY, M.F.A.

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SEAN KESSLER, Ph.D.

Biology

MICHAEL KHOURY, M.A.

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SAWSSAN KHOURY, M.A.

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ERIN KILLEEN, M.Ed.

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JACOB KING, M.A.

English

NANCY KITAY, B.S.

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JEFFREY KRIESSLER, Ph.D.

Physics

LUCY KULBAGO, M.S.

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JANET LARSEN, Ph.D.

Psychology

KATHERINE LEVENTHAL, M.A.

Psychology

GEORGE LEWANDOWSKI, M.D.

Philosophy

MATTHEW LINDBERG, Ph.D.

Psychology

PATRICIA LONDON, M.A.

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PETER MANOS, M.A.

Communication and Theatre Arts

CYNTHIA MARCO-SCANLON, Ph.D.

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JAMES MARDER, Ph.D.

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RICHARD MAROON, M.A./ABD Education and Allied Studies

SEAN MARTIN, Ph.D.

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EDWIN MARTINEZ, M.B.A.

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Education and Allied Studies

Policy on Disability-Related Grievances

I. POLICY STATEMENT

In furtherance of its non-discrimination policies, it is the policy of John Carroll University ("John Carroll") to comply fully with state and federal laws, including the Americans with Disabilities Act (the "ADA") and Section 504 of the Rehabilitation Act of 1973 ("Section 504"), and to establish a procedure to ensure that grievances are fairly heard and resolved. Grievances arising under this Policy include allegations concerning accessibility, discriminatory treatment, harassment, retaliation, and other allegations of disability-related violations.

II. PURPOSE

The purpose of this Policy is to establish a grievance procedure that provides grievants with a fair and effective mechanism for resolving disability-related disputes.

III. APPLICABILITY

This Policy applies to complaints by persons alleging discrimination carried out by John Carroll faculty, staff, employees, students and third parties contracted on behalf of the University.

IV. POLICY ELABORATION

John Carroll strongly urges that—when appropriate—parties resolve disputes through informal and direct contact between the affected individuals and the office of Services for Students with Disabilities ("SSD"). However, there may be instances when informal efforts are ineffective or otherwise not appropriate. Persons are not required to engage in an informal resolution process, and persons who are engaged in informal resolution efforts may, at any time, elect to engage the formal grievance process set forth below.

Step 1: The grievance must be presented in writing to the Director of SSD. The SSD office is located on the Garden Level of the Administration Building, in Room A-7. The SSD mailing address is Services for Students with Disabilities, 1 John Carroll Boulevard, University Heights, Ohio 44118. The SSD phone number is (216) 397-4967. In the event the grievance is against the Director, the grievant should file the grievance with the Dean of the College of Arts and Sciences. The office of the Dean of the College of Arts and Sciences is located in the B Wing of the Administration Building in Room B101. The mailing address is Office of the Dean of the College of Arts and Sciences, 1 John Carroll Boulevard, University Heights, Ohio 44118. The phone number of the College of Arts and Sciences is (216) 397-4215

Any grievance shall: (a) clearly identify the facts and events related to the grievance; (b) identify all relevant persons and their respective roles in the dispute; (c) explain all efforts undertaken to resolve the issue prior to filing a grievance; and (d) identify

Policy on Disability-Related Grievances

any specific relief sought. Upon receipt of a grievance, the Director or the Dean shall contact the parties and provide them the opportunity to submit evidence and identify witnesses. Witness statements may be submitted in writing or be heard by the Director or the Dean. All evidence shall be submitted within twenty-one (21) days following the submission of the written statement.

The Director or the Dean shall review all relevant evidence, and shall, if appropriate, interview the parties and other witnesses. The Director shall then consult as necessary with John Carroll's legal counsel. Subsequently, within fourteen (14) days of receiving the evidence, the Director or the Dean shall make a finding, provided in writing to all parties, that shall identify any violations of the ADA and/or Section 504, and shall identify necessary and appropriate remedial measures that John Carroll will take to prevent recurrence of any discrimination and/or to correct any discriminatory effects. After the Director or the Dean has issued a finding, any party may make a written request that the Director or Dean engage **Step 2** within ten (10) business days after receiving the written finding.

Step 2: The Director shall submit a written statement of the matter, including the finding identified in **Step 1**, to the Dean of the College of Arts and Sciences. If the grievance is against the Director, **the** Dean shall submit a written report to the Provost and Academic Vice President (the "Provost"). The Dean or the Provost shall then contact all involved parties to discuss the grievance, and shall conduct further investigation as s/he deems necessary. The Office of the Provost is located in the Administration Building, Room AD133. The mailing address is Office of the Provost and Academic Vice President, 1 John Carroll Boulevard, University Heights, Ohio 44118. The phone number is 216-397-4207.

Within twenty-eight (28) days after receiving the **Step 1** findings, the Dean or the Provost shall provide all involved parties with a written decision as to whether discrimination did or did not occur as found in Step 1. All parties shall receive a copy of the written decision. In the event that the Dean or the Provost determines that a violation of the ADA and/or Section 504 has occurred, the written decision shall outline the steps that John Carroll will take to correct any discriminatory effects and to prevent recurrence of any discrimination.



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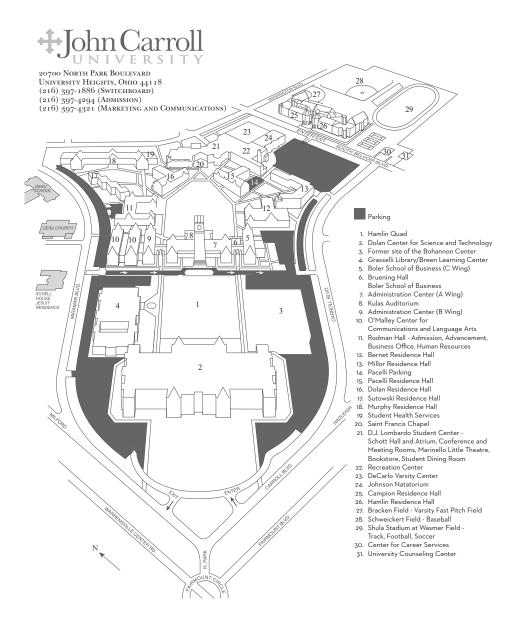
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Campus Map



For personalized directions to campus, please go to http://sites.jcu.edu/campus-maps/.

