# Undergraduate Bulletin 2017-2019 

John Carroll University

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## John Carroll University Undergraduate Bulletin 2017-2019 <br> Contents

General Information ..... 5
Academic Calendar 2017-2019 ..... 14
Admission. ..... 17
Expenses ..... 34
Financial Aid ..... 38
Student Life ..... 42
Student Services ..... 56
Liberal Education at John Carroll University ..... 67
College of Arts and Sciences ..... 80
John M. and Mary Jo Boler School of Business ..... 85
Five-Year Bachelor's/Master's Programs ..... 92
Interdisciplinary Minors ..... 94
Centers, Institutes, and Programs ..... 97
Preparation for Graduate and Professional Study. ..... 101
Graduate Studies. ..... 108
Academic Policies and Procedures ..... 110
Department and Course Codes ..... 129
Department Chairs ..... 132
Accountancy ..... 133
Arrupe Scholars Program ..... 138
Art History and Humanities ..... 140
Arts and Sciences ..... 147
Biology. ..... 152
Borromeo Seminary Institute ..... 167
Business Intelligence ..... 169
Career Education ..... 171
Chemistry ..... 172
Chinese ..... 181
Classical and Modern Languages and Cultures ..... 183
Classics ..... 187
Communication and Theatre, The Tim Russert Department of ..... 190
Computer Science ..... 207
Data Science. ..... 213
East Asian Studies ..... 218
Economics ..... 223
Education and School Psychology. ..... 228
English. ..... 246
Entrepreneurship ..... 260
Exercise Science ..... 263
Finance ..... 273
Fine Arts ..... 277
French and Francophone Studies ..... 282
Gender, Sexuality, and Women's Studies ..... 289
German ..... 294
Greek ..... 297
History ..... 299
Honors Program ..... 310
Humanities ..... 314
International Business with Language and Culture ..... 317
International Cultures ..... 322
Italian Studies ..... 327
Japanese ..... 330
Latin ..... 332
Leadership Development. ..... 334
Management and Human Resources ..... 337
Marketing ..... 341
Mathematics. ..... 347
Military Science ..... 356
Modern Languages ..... 363
Peace, Justice, and Human Rights ..... 364
Philosophy ..... 367
Physics and Engineering Science ..... 376
Political Science ..... 385
Pre-Health Professions ..... 397
Psychology ..... 399
Russian ..... 410
Slovak ..... 412
Sociology and Criminology ..... 413
Spanish and Hispanic Studies ..... 425
Sports Studies ..... 431
Supply Chain Management ..... 437
Theology and Religious Studies ..... 440
Endowed Centers, Chairs, Professorships, and Lectureships ..... 454
Philanthropic Gifts ..... 461
Faculty Awards ..... 464
Directors, Administrators, Committees ..... 466
Retired Faculty ..... 475
Current Faculty ..... 483
Adjunct Faculty and Lecturers ..... 503
Graduate Assistants ..... 509
Appendices ..... 511
Index ..... 523
Campus Map. ..... 526

## 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 (216) 397-xxxx

## OFFICE

Admission
Academic Deans
Arts and Sciences
Boler School of Business (BSOB)
Associate Dean, BSOB
Associate Dean for the Humanities
Associate Dean for Natural Science Mathematics \& Health
Associate Dean for Social Sciences, Education \& Global Education
Athletic Director
Business Office
Accounts Payable
Carroll Card Office
Payroll
Student Service Center
Campus Ministry
Center for Career Services
Center for Service and Social Action
Center for Global Education
Center for Student Diversity
and Inclusion
Dean of Students
Enrollment Services
Financial Aid
Graduate Studies
College of Arts \& Sciences
Boler School of Business
Human Resources
Information Technology Services
John Carroll Police Department
Library Main Desk
Registrar
Registration
Residence Life
Student Accessibility Services
Student Health and Wellness Center Student Union
University Advancement
Marketing and Communications
University Counseling Center
ALL OTHER OFFICES

## LOCATION

Rodman Hall

Administration Building, West Wing 4215
School of Business Wing 4391
School of Business Wing 4391
Administration Building, West Wing 4204
Administration Building, West Wing 4287
Administration Building, West Wing 4320
Tony DeCarlo Varsity Center 4416
Rodman Hall 4440
Administration Building 4961
Rodman Hall 4456
Administration Building 4494
Fritzsche Religious Center 4717
2563 S. Belvoir Boulevard 4237
Administration Building 4698
Administration Building, West Wing 4320
Lombardo Student Center 4185
Lombardo Student Center 3010
Rodman Hall 4252
Rodman Hall 4248
Administration Building, West Wing 4284
School of Business Wing 1970
Rodman Hall 4976
Rodman Hall 4261
Lombardo Student Center 4600
Grasselli Library 4233
Administration Building, West Wing 4291
Rodman Hall 6000
Lombardo Student Center 4408
Administration Building (Voice/TTY) 4967
Murphy Hall 4349
Lombardo Student Center 4230
4322
Rodman Hall 4321
2567 S. Belvoir Boulevard 4283
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 are welcome and may be sent to jkrukones@jcu.edu.

Information is accurate as of June 1, 2017. 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.


Dr. Jeanne Colleran, Ph.D., Interim President

## 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 125 th anniversary.

In 1923 the college was renamed John Carroll University, after the first archbishop of the Catholic Church in the United States. In 1934, it 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 twentyfourth 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 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 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.
- 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.

## John Carroll University Learning Goals

Preamble: The vision of Jesuit higher education for the twenty-first century is to graduate individuals with a well-educated solidarity who are contemplatives in action-morally responsible, aware of the fundamental challenges facing the modern world, with a depth of knowledge and strength of character to work creatively and compassionately for a more just and humane society. Within this vision, a John Carroll education is distinguished by respect and care for the whole person (cura personalis), innovative teaching, and integrated learning across the entire student experience. A commitment to excellence and academic rigor animates our way of proceeding graduating individuals of intellect and character who lead and serve by engaging the world around them and around the globe.

We express this commitment in terms of the following four University learning goals informed by our Jesuit, Catholic heritage.

Intellect: John Carroll students will be transformed by an integrative curriculum, in-depth study within their programs(s) of study, and applied learning to fully realize their potential to enrich the world. To achieve this level of engaged learning, our students will:

- Develop habits of critical analysis and aesthetic appreciation.
- Understand the religious dimensions of human experience.
- Demonstrate an integrative knowledge of human and natural worlds.
- Apply creative and innovative thinking.
- Communicate skillfully in multiple forms of expression.
- Demonstrate a capacity to engage in respectful civil discourse.

Character: John Carroll students will develop a holistic awareness of self and others, acting with integrity and moral purpose for the good of society. Amidst a diverse community of learners and inspired by the Ignatian tradition of finding God in all things, our students will:

- Cultivate a habit of reflection.
- Understand, value, and respect their own and others' talents, unique characteristics, and sociocultural identities.
- Develop a personal belief system that is inspired by Ignatian values such as rigor, generosity, gratitude, inclusivity, solidarity, and a desire for the greater good.
- Practice mature decision making and care for the whole person.
- Act competently in a global and diverse world.

Leadership: John Carroll students will recognize themselves as agents of positive change with and for others. Integrating faith and reason to meet the world's needs through ethical leadership, our students will:

- Claim their identities as discerning leaders.
- Apply a framework for examining ethical dilemmas.
- Employ leadership and collaborative skills.
- Live responsibly in accord with their personal belief system.

Service: John Carroll students will advocate for social justice through responsible service in their local, national, and global communities. Informed by our collective faith traditions, prepared by scholarship, and in solidarity with the poor and the marginalized, our students will:

- Understand and promote social justice.
- Work actively toward creating a more inclusive, welcoming, and just community.
- Serve in their communities as engaged citizens and advocates.


## Assessment of Student Learning

A coordinated program of assessing student learning is integral to understanding and improving the student experience. Assessment of student learning is a University-wide effort, with the full support of the administration. The assessment program requires the systematic collection of evidence 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, and strategic planning.

Effective assessment of student learning relies on collaboration between students, faculty, and staff. Assessment of student learning occurs in every academic program, the Core Curriculum, and student life. Student participation in the assessment program-through surveys, tests, course assignments, and interviews, among other things-provides the essential information upon which the University evaluates and ensures its commitment to student learning.

The Institutional Assessment committee is the primary oversight and recommending body for the assessment of student learning, providing guidance to the director of academic assessment in the development, implementation, and review of assessment programs.

## 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 2016 surpassed 3,500 students. In 2015-2016, the six-year graduation rate for students who entered the University in 2011 on a full-time basis was $76.7 \%$.

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. 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 of the more recent 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. It houses the Departments of Art History and Humanities, Biology, Chemistry, Exercise Science and Sports Studies, Mathematics and Computer Science, Physics, and Psychology. 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). 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, National Association for College Admissions Counseling, 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, and Ohio Foundation of Independent Colleges, Inc.

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; and the Rai Institute, India. 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 Universitá 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 degree 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 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 lifelong, 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.

The Alumni Medal, the highest honor annually awarded by the Alumni Association, is presented to alumni 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 2017-2019

## 2017 - FALL SEMESTER

Aug. 25 (Fri.)
Aug. 28 (Mon.)
Aug. 28-Sept. 1 (Mon.-Fri.)
Sept. 4 (Mon.)
Sept. 7 (Thurs.)
Sept. 12 (Tues.)
Sept. 21 (Thurs.)

Oct. 12 (Thurs.)
Oct. 16 (Mon.)
Nov. 21 (Tues.)

Nov. 21 (Tues.)
Nov. 27 (Mon.)
Dec. 9 (Sat.)
Dec. 11-15 (Mon.-Fri.)

Final registration
Classes begin
Course changes and late registration
Labor Day (No classes; offices closed)
Mass of the Holy Spirit
Last day to change to audit or elect Pass/Fail option
Deadline for filing graduation application for January,
May and August 2018 degrees for Boler School of Business and College of Arts and Sciences

Fall break begins after last scheduled class
Classes resume
Friday classes meet
Thanksgiving break begins after last scheduled class
Deadline for course withdrawal
Classes resume
Last day of classes
Final examinations

## 2018 - SPRING SEMESTER

Jan. 12 (Fri.)
Jan. 15 (Mon.)

Jan. 16 (Tues.)
Jan. 16-22 (Tues.-Mon.)
Jan. 30 (Tues.)
Mar. 3 (Sat.)
Mar. 12 (Mon.)

Final regular registration
Martin Luther King, Jr., Day (No classes; offices closed)

Classes begin
Course changes and late registration
Last day to change to audit or elect Pass/Fail
Spring break begins after last scheduled class
Classes resume

| Mar. 28 (Wed.) | Friday classes meet |
| :--- | :--- |
|  | Easter break begins after last scheduled class |
| Apr. 3 (Tues.) | Classes resume |
|  | Monday classes meet |
| Apr. 17 (Tues) | Deadline for course withdrawal |
| May 3 (Thurs.) | Last day of classes |
| May 4-5 (Fri.-Sat.) | Reading Days |
| May 7-11 (Mon.-Fri.) | Final examinations |
| May 20 (Sun.) | Commencement |

## 2018 - SUMMER SESSIONS

The calendar for Summer Sessions will be available online about December 15, 2017.

## 2018 - FALL SEMESTER

Aug. 24 (Fri.)
Aug. 27 (Mon.)
Aug. 27-31 (Mon.-Fri.)
Sept. 3 (Mon.)
Sept. 6 (Thurs.)
Sept. 11 (Tues.)
Sept. 20 (Thurs.)

Oct. 11 (Thurs.)
Oct. 15 (Mon.)
Nov. 20 (Tues.)

Nov. 20 (Tues.)
Nov. 26 (Mon.)
Dec. 8 (Sat.)
Dec. 10-14 (Mon.-Fri.)

Final registration
Classes begin
Course changes and late registration
Labor Day (No classes; offices closed)
Mass of the Holy Spirit
Last day to change to audit or elect Pass/Fail option
Deadline for filing graduation application for January, May and August 2019 degrees for Boler School of Business and College of Arts and Sciences

Fall break begins after last scheduled class
Classes resume
Friday Classes meet
Thanksgiving break begins after last scheduled class
Deadline for course withdrawal
Classes resume
Last day of classes
Final examinations

## 2019 - SPRING SEMESTER

| Jan. 11 (Fri.) | Final regular registration |
| :--- | :--- |
| Jan. 14 (Mon.) | Classes begin |
| Jan. 14 -18 (Mon.-Fri.) | Course changes and late registration |
| Jan. 21 (Mon.) | Martin Luther King, Jr., Day (No classes; offices <br> closed) |
| Jan. 29 (Tues.) | Last day to change to audit or elect Pass/Fail |
| Mar. 2 (Sat.) | Spring break begins after last scheduled class |
| Mar. 11 (Mon.) | Classes resume |
| Apr. 17 (Wed.) | Easter break begins after last scheduled class |
| Apr. 23 (Tues.) | Classes resume |
| Apr. 23 (Tues.) | Monday classes meet |
| May 2 (Thurs.) | Last day of classes |
| May 3-4 (Fri.-Sat.) | Reading Days |
| May 6-10 (Mon.-Fri.) | Final examinations |
| May 19 (Sun.) | Commencement |

## 2019 - SUMMER SESSIONS

The calendar for Summer Sessions will be available online about December 15, 2018.


## Admission

## FIRST-YEAR ADMISSION

Admission to John Carroll University is a deliberate and personal process. It 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/or teacher recommendations are also weighted.

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

The easiest way to apply to John Carroll University is through the Common Application. Students may apply to the University online at www.commonapp.org. There is no fee to apply to John Carroll.

1. Submit a Common Application to the Office of Admission. Candidates for the first-year 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 apply for admission directly to the Boler School of Business.
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 School Report and/or the Teacher Evaluation 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) or the American College Testing (ACT) Program. 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 any time after October 1 of the senior year.

## APPLICATION DEADLINES

The Office of Admission has specific admission application and notification dates for first-year 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 (non-restrictive) 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 first-year admission by the priority scholarship deadline of December 1.

## ENROLLMENT CONFIRMATION

Admitted students reserve their place in the first-year 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.

First-year applicants who are not commuting 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. Commuting is defined as living exclusively in the permanent and primary residence of a parent or legal guardian. The home of the parent or guardian must be within 35 miles of the John Carroll University campus. Once a student establishes his/her status as a resident, he/she must seek approval for a change of status to commuter. Formal requests can be made through the Office of Residence Life through the Request for Release process.

There is no deadline for enrollment deposits; however, May 1 is the last date which will guarantee an accepted applicant a place in the first-year 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 first-year applicants must submit the results of testing by either the College Board (SAT) or the American College Testing (ACT) Program.

SAT: Applicants taking the SAT 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, please use John Carroll's SAT code, which is 1342.

Students may obtain registration forms and general information from their secondary school guidance office or 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 the ACT website www.act. org. To have scores sent directly to the University, use John Carroll's ACT code, which is 3282 . John Carroll University 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 prior to 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), the American College Testing (ACT), the TOEFL, or the IELTS. We further require international applicants to provide a photocopy of their passport as part of their application file. International applicants
are not eligible to submit a FAFSA unless they are dual citizens (of the U.S. and another country).

After being admitted, international students who are seeking institutional financial aid 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 are required to provide proof of student health insurance.

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 first-year admission.

Students in good academic and behavioral standing at another accredited university, college, or community 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 community 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 or when requested by the Committee on Admission. In addition, a Transfer Reference Form must be submitted from the applicant's current school or the school most recently attended; the form can be found at
http://sites.jcu.edu/admission/pages/apply/transfer-students/application-process/.
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 consult the website at http://sites.jcu.edu/veterans/.

## Credit Evaluation

The University offers students two ways to receive transfer credits towards the John Carroll degree. Prior to matriculation, students may earn college credits through exams administered by major testing programs or by course work taken at accredited institutions of higher education or their foreign equivalents. Initial determination of credit transferability occurs at the time of evaluation for admission. All requests for transfer of credits earned prior to matriculation must be submitted by the end of the second semester after matriculation. To ensure transferability of credits after matriculation, students must have an approved petition in advance of taking courses through University-approved study abroad programs or at other regionally accredited institutions. Transcripts must be sent directly to the University registrar.

Courses proposed for transfer credit must be completed with a C or higher (not Pass/Fail, unless it can be determined that the passing mark is equivalent to a C or higher). Course work taken at another regionally accredited academic institution or a foreign equivalent may be awarded credit towards a John Carroll degree. Courses are reviewed by department chairs, program directors, and academic deans using the following criteria:

- Acceptability: course work acknowledged by the University as having met standards for evaluation and award of undergraduate transfer credit, independent of delivery method.
- Comparability: the course work is comparable in content, expectations, and credit hours to courses offered at John Carroll.
- Applicability: the course work is deemed appropriate for use within a degree program to fulfill specific requirements.
(These definitions will also appear in the Bulletin's glossary.)
Some restrictions apply. Qualitatively, credits from other schools must be within one credit hour of comparable work at John Carroll. Quality points and grades are not transferred, only credits. At least $50 \%$ of the credits for the degree must be earned
at John Carroll or through an approved dual-degree or study-abroad program. At least $50 \%$ of the credits for the major must be earned at John Carroll or through an approved dual-degree or study-abroad program.

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.

## 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 (http://sites.jcu.edu/admission/pages/apply/part-time-students/). 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 for transfer admission,(http://sites.jcu.edu/admission/pages/ apply/transfer-students/application-process/). 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 (fee schedule). Part-time students accepted for admission for fall semester are required to submit a $\$ 100$ 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 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. Please refer to the Financial Aid section of this Bulletin for additional information (http://sites.jcu.edu/aid/).

## Readmission

Students who have been absent from the University and do not have a valid or current Leave of Absence Form on file must formally apply for readmission to John Carroll University.

To apply, students should complete and submit the Application for Re-admission. Students who have attended other colleges or universities are required to provide the following:

- Official transcripts from each school attended. Official transcripts must be mailed directly to John Carroll from each college or university (we are unable to accept hand-delivered transcripts). Failure to report collegiate-level attendance at any institution will make a student liable for immediate dismissal.
- Completed Transfer Reference Form if attendance elsewhere was full-time.

All readmission students are held to degree and curricular requirements in force at the time of their readmission to the University unless they are granted special approval by Academic Advising.

## Reinstatement

Students under notice of dismissal from the University are ineligible to return until the lapse of one semester and one summer. Students who wish to be considered for re-admission after the expiration of this time period must submit the Application for Re-admission and a written petition to the Admission Committee, which includes the following:

1. Explanation of probable reasons for scholastic deficiencies.
2. Explanation of the manner in which intervening time has been spent.
3. Reasons why favorable consideration for readmission should be given.
4. Why/how they will be successful upon return to JCU.

Students who have attended other colleges or universities after dismissal from John Carroll must present official transcripts from all other institutions attended in addition to a completed Transfer Reference Form. This readmission process can take several weeks so petitions for readmission should be submitted at least one month prior to registration.

Students dismissed from the University or those who left on probation must submit their applications for readmission by August 1 for the fall semester or 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. 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 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 http://sites.jcu.edu/summer/.

## Summer Admission

Summer entrants who plan to continue studies in the fall semester as full-time students in one of the undergraduate divisions at John Carroll should submit applications according to first-year 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 http://sites.jcu.edu/summer/. Transient students must be in a good academic standing and complete the online application form.

## Early Enrollment Program for High School and Middle School Students

The State of Ohio, through its College Credit Plus (CCP) Program, seeks to maximize students' postsecondary credit opportunities in the state along with Advanced Placement, International Baccalaureate, and Early College High Schools.

Middle school and high school students who meet the following criteria are eligible to enter John Carroll University as a postsecondary transient student:

1. A GPA of 3.2 or better
2. Test scores equal to or higher than: ACT-21 (composite) or SAT-1080 (Math and Critical Reading)
3. Satisfactory evaluation of at least one of the standards identified in the Uniform Statewide Standards for Remediation-Free Status (particularly in the subject area related to potential college course work).

In addition, students must submit the College Credit Plus (CCP) application found at http://go.jcu.edu/ccp to the Office of Admission and present the required documentation before the stated deadline.

The Early College Program is a distinct program in partnership with the Cleveland Heights-University Heights City School District. Students enrolled in this program have additional criteria required by the school district for participation in this program.

## COLLEGE COURSE CREDIT Post-Secondary Enrollment Options (PSEO)/College in High School (CIHS)

John Carroll University grants credit for college-level classes that a student completes while in high school. Credit will be accepted from regionally accredited institutions as long as students achieve a grade of "C" or better.

Official determination of credit transferability occurs only after the student has committed to John Carroll and submitted his or her enrollment deposit. At that time, students should contact the registrar's office of the college or university at which the classes were taken and request that an official transcript be sent directly to the Office of Admission at John Carroll University. Once the official transcript arrives, the JCU Registrar's Office will evaluate the courses and will send the student a Transfer Credit Evaluation. This will include the courses taken and John Carroll's equivalencies for those courses. Quality points and grades are not transferred, only credit hours.

Generally speaking, if a college course taken during high school does not map directly to a course at John Carroll, credits will be accepted as general electives. However, students will not receive credit for courses in orientation, applied arts, athletics, or technical training.

## ADVANCED PLACEMENT

Advanced Placement (AP) courses, administered by the College Board, are collegelevel classes in six academic areas that students can take while in high school. Those who opt to take the year-end AP Examinations can also potentially receive college credit. Information about these examinations may be obtained through the high school or the College Board website www.collegeboard.com.

Once students commit to John Carroll and submit their enrollment deposit, they should request that their Advanced Placement test scores be sent directly from the College Board to John Carroll for an official credit evaluation. The tables below show current departmental practice for AP tests.

Courses that satisfy the Integrative Core Curriculum are denoted as such:
HUM = Satisfies the Humanities distribution requirement. CAPA = Satisfies the Creative and Performing Arts requirement. SOC = Satisfies the Social Science distribution requirement. SCI = Satisfies the Natural Science distribution requirement.

QA = Satisfies the Quantitative Analysis (foundational competencies) requirement. + = Satisfies the Written Expression (foundational competencies) requirement. ++ = Satisfies the Language requirement.

Courses that satisfy the Integrative Core Curriculum are denoted as such:
HUM = Satisfies the Humanities distribution requirement.
CAPA = Satisfies the Creative and Performing Arts requirement.
SOC = Satisfies the Social Science distribution requirement.
SCI = Satisfies the Natural Science distribution requirement.
QA = Satisfies the Quantitative Analysis (foundational competencies) requirement. + = Satisfies the Written Expression (foundational competencies) requirement. ++ = Satisfies the Language requirement.

## AP CAPSTONE

| AP Test | Minimum AP Score <br> Required for Credit | Semester <br> Hours | JCU Course <br> Equivalent <br> (Course Credit) |
| :--- | :---: | :---: | :---: |
| Research | 3 | 3 | GE 1XX* |
| Seminar | 3 | 3 | GE 1XX* |

* To be considered for more specific designations, the student must provide a syllabus from his or her high school for this course, along with a transient petition form.

ARTS

| AP Test | Minimum AP Score <br> Required for Credit | Semester <br> Hours | JCU Course <br> Equivalent <br> (Course Credit) |
| :--- | :---: | :---: | :---: |
| Art History | 3 | 3 | GE 1XX |
| Music Theory | 4 | 3 | AH 101 $1^{\text {HUM }}$ |
| Studio Art: 2-D Design* | 3 | 3 | FA 160 |

[^0]ENGLISH

| AP Test | Minimum AP Score <br> Required for Credit | Semester <br> Hours | JCU Course <br> Equivalent <br> (Course Credit) |
| :--- | :---: | :---: | :---: |
| English Language and | 3 | 3 | GE 1XX |
| Composition | 4 | 3 | EN $125^{+}$ |
| English Literature and | 3 | 3 | GE 1XX |
| Composition | 4 | 3 | EN $125^{+}$ |

HISTORY AND SOCIAL SCIENCE

| AP Test | Minimum AP Score Required for Credit | Semester <br> Hours | JCU Course Equivalent (Course Credit) |
| :---: | :---: | :---: | :---: |
| Comparative Government and Politics | 3 | 3 | PO $102{ }^{\text {SOC }}$ |
| European History | 3 | 3 | HS $296{ }^{\text {HUM }}$ |
| Human Geography | 3 | 3 | HS 271 |
| Macroeconomics | 3 | 3 | EC 202 ${ }^{\text {SOC }}$ |
| Microeconomics | 3 | 3 | EC 201 ${ }^{\text {SOC }}$ |
| Psychology | 3 | 3 | PS $101{ }^{\text {SCI }}$ |
| United States Government and Politics | 3 | 3 | PO $101^{\text {SOC }}$ |
| United States History | $\begin{aligned} & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 6 \end{aligned}$ | $\begin{gathered} \text { HS 211 }{ }^{\text {HUM }} \\ \text { HS 211-212 } \\ \hline \end{gathered}$ |
| World History | $\begin{aligned} & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 6 \end{aligned}$ | $\begin{gathered} \text { HS 201 }{ }^{\text {HUM }} \\ \text { HS 201-202 } \end{gathered}$ |

MATH AND COMPUTER SCIENCE

| AP Test | Minimum AP Score Required for Credit | Semester <br> Hours | JCU Course Equivalent (Course Credit) |
| :---: | :---: | :---: | :---: |
| Calculus AB (or AB subscore on BC exam) | 3 | 4 | MT $135{ }^{\text {SCI }}$ |
| Calculus BC | $\begin{gathered} 3 \\ 4-5 \end{gathered}$ | $\begin{aligned} & 4 \\ & 8 \end{aligned}$ | $\begin{gathered} \text { MT } 135^{\mathrm{SCI}} \\ \text { MT } 135-136^{\mathrm{SCI}} \end{gathered}$ |
| Computer Science A | 3 | 3 | CS $228{ }^{\text {SCI }}$ |
| Computer Science Principles | 4 | 4 | CS 128, CS 128L ${ }^{\text {SCI }}$ |
| Statistics | $\begin{gathered} 3 \\ 4-5 \end{gathered}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | MT $122^{\mathrm{QA}}$ <br> MT $229^{\text {QA }}$ |

SCIENCES

| AP Test | Minimum AP Score <br> Required for Credit | Semester <br> Hours | JCU Course Equiv- <br> alent <br> (Course Credit) |
| :--- | :---: | :---: | :---: |
| Biology | $3-4$ | 4 | BL 112, BL 112L $^{\text {SCI }}$ |
|  | $5^{*}$ | 8 | BL 155-158 |

*Students who earn a 5 on the AP Biology exam may:

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- Receive 8 credits for BL 155-158, Principles of Biology I and II (lectures and labs).
${ }^{* *}$ Students who have a score of 5 on both the AP Physics and Physics II exams, and who have the equivalent of MT 136 (Calculus and Analytic Geometry II), may receive a total of 8 credit hours for PH 135-136 and PH135L-136L. If students do not have the MT 136 equivalent, they will be awarded credit for PH 125-126 and PH 125L-126L.
*** Students who have a score of 5 on the AP Physics B exam, and who have the equivalent of MT 136 (Calculus and Analytic Geometry II), may receive credit for PH 135-136 and PH 135L-136L. If students do not have the MT 136 equivalent, they will be awarded credit for PH 125-126 and PH 125L-126L.

WORLD LANGUAGES AND CULTURES

| AP Test | Minimum AP Score <br> Required for Credit | Semester <br> Hours | JCU Course <br> Equivalent <br> (Course Credit) |
| :--- | :---: | :---: | :---: |
| Chinese Language and Culture | 3 | 6 | CN 201-202 ${ }^{++}$ |
| French Language and Culture | 3 | 6 | FR 201-202 |
| German Language and Culture | 3 | 3 | GR 102 <br> GR 102, GR <br> 201 |
| Italian Language and Culture | 3 | 6 | IT 201-202 |
| Japanese Language and Culture | 3 | 6 | JP 201-202 |
| Latin | 3 | 6 | LT 1XX |
| Spanish Language and Culture | 3 | 6 | LT 201, LT 232 |
| Spanish Literature and Culture | 3 | 6 | SP 201-202 |

## 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)

The International Baccalaureate ${ }^{*}$ (IB) Diploma Programme (DP) prepares high school students for success at the university level. The academically challenging, internationally focused curriculum includes courses in six subject areas. Students taking year-end IB examinations can also potentially receive college credit.

Once students commit to John Carroll and submit their enrollment deposit, they should request that a transcript from International Baccalaureate North America (IBNA) be sent directly to John Carroll for an official credit evaluation. The tables below show current departmental practice for IB exams.

For courses not listed below, the student must also provide a syllabus from his or her high school for each course being considered for transfer credit. A copy of the syllabus will be sent to the department chair at John Carroll for input on what credit may be given before the official credit evaluation is sent to the student.

Courses that satisfy the Integrative Core Curriculum are denoted as such:
CAPA $=$ Satisfies the Creative and Performing Arts requirement.
HUM = Satisfies the Humanities distribution requirement.
SOC $=$ Satisfies the Social Science distribution requirement.
SCI = Satisfies the Natural Science distribution requirement.
$+=$ Satisfies the Written Expression (foundational competencies) requirement.
++ = Satisfies the Language requirement.
John Carroll accepts Higher Level (HL) course work only, except as noted below.

STUDIES IN LANGUAGE AND LITERATURE

| IB Course | IB Score Required for <br> Credit | Semester <br> Hours | JCU Course <br> Equivalent |
| :--- | :---: | :---: | :---: |
| English A: Language and <br> Literature | $6-7$ | 3 | EN $125^{*}$ |
| English A: Literature | $6-7$ | 3 | EN $125^{*}$ |

## LANGUAGE ACQUISITION*

| IB Course | IB Score Required for <br> Credit | Semester <br> Hours | JCU Course Equiv- <br> alent |
| :--- | :---: | :---: | :---: |
| Arabic B | SL 6-7 | 6 | AB 101-102 |
|  | HL 5-7 | 6 | AB 201-202* |
| French B | SL 6-7 | 6 | LT 101-102 or GK |
|  | HL 5-7 | 6 | LT 201, LT 232* or GK |
|  |  | 3 | $299^{* *}$ |
| German B | SL 6-7 | 6 | FR 101-102 |
|  | HL 5-7 | 6 | FR 201-202** |
| Japanese B | SL 6-7 | 3 | GR 102 |
|  | HL 5-7 | 6 | GR 102, GR 201** |


| Mandarin/Chinese B | SL 6-7 | 6 | CN 101-102 |
| :--- | :---: | :--- | :---: |
|  | HL 5-7 | 6 | CN 201-202** |
| Russian B | SL 6-7 | 6 | RS 101-102 |
|  | HL 5-7 | 6 | RS 202-202** |
| Spanish B | SL 6-7 | 6 | SP 101-102 |
|  | HL 5-7 | 6 | SP 201-201** |

**For language courses not listed, the student must also provide a syllabus from his or her high school for each course being considered for credit.

INDIVIDUALS AND SOCIETIES

| IB Course | IB Score Required for Credit | Semester Hours | JCU Course Equivalent |
| :---: | :---: | :---: | :---: |
| Business and Management | 5-7 | 3 | GE ELEC |
| Economics | $\begin{gathered} 5 \\ 6-7 \end{gathered}$ | $6$ | $\begin{gathered} \text { EC 201 } 1^{\mathrm{SOC}} \\ \text { EC } 202-202^{\mathrm{SOC}} \end{gathered}$ |
| Geography | 6-7 | 3 | HS 271 |
| Global Politics | 6-7 | 3 | PO $3 \mathrm{XX}^{\text {soc }}$ |
| History | 6-7 | 3 | $\begin{gathered} \text { HS } 195,196,197 \text { or } \\ 2 \text { XX*HUM } \end{gathered}$ |
| Information Technology in a Global Society | - | - | NA 000** |
| Philosophy | 6-7 | 3 | PL 101 |
| Psychology | 5-7 | 3 | PS 101 ${ }^{\text {scl }}$ |
| Social and Cultural Anthropology | 6-7 | 3 | SC $245^{\text {SoC }}$ |

* Credit awarded for History is dependent on the student's course. To be considered, the student must provide a syllabus from his or her high school for this course, along with a transient petition form.

[^1]
## SCIENCES

| IB Course | IB Score Required for <br> Credit | Semester <br> Hours | JCU Course Equivalent |
| :--- | :---: | :---: | :---: |
| Biology | $4-5$ | 4 | BL 102, BL 102L ${ }^{\text {SCI }}$ |
| Chemistry | $6-7$ | 8 | BL 155-158 |

## MATHEMATICS

| IB Course | IB Score Required for <br> Credit | Semester <br> Hours | JCU Course Equivalent |
| :--- | :--- | :--- | :--- |
| Mathematics | 5 | 4 | MT 135 ${ }^{\text {SCI }}$ |
|  | $6-7$ | 8 | MT 135-136 ${ }^{\text {SCI }}$ |
| Further Mathematics | 5 | 3 | MT 271 |
|  | 6 | 6 | MT 271, MT 2XX |
|  | 7 | 8 | MT 271, MT 2XX |

## THE ARTS

| IB Course | $\begin{array}{c}\text { IB Score Required for } \\ \text { Credit }\end{array}$ | $\begin{array}{c}\text { Semester } \\ \text { Hours }\end{array}$ | JCU Course Equivalent |
| :--- | :---: | :---: | :---: |
| Dance | $5-7$ | 3 | FA ELEC $^{\text {CAPA }}$ |$]$| Film |
| :--- |
| Music |
| Theatre |
| Visual Arts |

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The College Level Examination Placement (CLEP) is designed to assist students who through personal study and effort may have developed the knowledge, understanding, and skills normally associated with certain college-level courses. 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 credits do not convert to letter grades and do not apply towards graduation honors. CLEP scores must be submitted at the point of matriculation. Students planning to take CLEP exams should consult the Office of Admission for a list of exams accepted and scores needed for the award of credit.

The University awards transfer credits for various international exams on a case-by-case basis. The most common type is the General Certificate of Education-A-level, but other exams will also be considered. Students who have made an enrollment deposit at John Carroll, and who wish to submit their exam scores for award of credit, should present official documentation of those scores to the Office of the Registrar.


## 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 e-mail 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 (TPP) allows a family to budget payments for the fall and spring semesters. Applications are made online through the student's Banner Web account. The amount budgeted will be paid each month July 1 through April 1. Any amount not budgeted on the TPP is due before the academic term begins. Any credit balance resulting from the TPP will be refunded.

## Regular Semester Charges TUITION (2017-2018 Academic Year)

Full-time Undergraduate Students:
( $12-18$ credits). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 19,245.00$ per semester
$\mathbf{( \$ 3 8 , 4 9 0 . 0 0}$ annual tuition, full-time 36 credits, that is, 18 hours each, fall and spring semesters)

Part-time ( $1-11$ credits) and each hour over 18 credits. . . . . . . . . $\$ 1283.00$ per credit
Summer Term 2018
$\$ 700.00$

## Graduate credit courses:

College of Arts and Sciences . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 705.00$ per creditBoler School of Business . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 870.00$ per creditStudents who are permitted to register as auditors are charged the same amounts asother students.FEES
Graduation-undergraduate or graduate
(payable at time of formal application for degree) ..... $\$ 200.00$
Graduation-undergraduate or graduate late application fee ..... $\$ 25.00$
International student: Application processing ..... $\$ 50.00$
International student Orientation ..... $\$ 725.00$
Orientation ..... $\$ 325.00$
Orientation, Transfer ..... $\$ 75.00$
Penalty-Late Payment of tuition, room or board ..... $\$ 150.00$
CCP (College Credit Plus): ..... \$166.00*
Return check fee ..... $\$ 25.00$
Room-Late cancellation fee. Cancellation fee dependent on date of cancellation** Student Activities Fee, per semester (full-time undergraduates only) ..... $\$ 200.00$
Student Health and Wellness fee, per semester (full-time undergraduates only) .....  $\$ 175.00$
Student Technology Fee, per semester (full-time undergraduates only), ..... $\$ 375.00$
Study abroad fee .dependent on specific program
Transcript of record ..... $\$ 5.00$
Tuition Payment Plan application fee ..... $\$ 25.00$
Laboratory, computer, and television/radio course fees vary with the nature of thelaboratory or course. Amounts are published in each semester's course schedule.
*High school students pay the regular JCU rate for a JCU course not covered by CCP.
** http://sites.jcu.edu/reslife/pages/general-information/new-2017-2018-housing- cancellation-policy

## ROOM AND BOARD (2017-2018 Academic Year)

Room and Board-each semester,
With the 14-meal "plus" plan and standard double room . . . . . . . . . . . . . . $\$ 5,790.00^{*}$
*Rate shown reflects cost of Standard double room and 14 -plus meal plan. Room \& Board rates vary based on the building, room type and amenities, and meal plan chosen.

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 room contents. 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.

Fees listed above pertain to the 2017-2018 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
b. Completely withdraw from the University during the first 3 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.

## 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 first-year 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; it is on the web at https://fafsa.ed.gov/. To complete the FAFSA online, a Federal Student Aid ID (FSAID) must be used. The FSAID application may be found at https://fsaid.ed.gov. Any inquiries concerning financial aid and application procedures should be addressed to the Office of Student Enrollment and Financial Services.

## 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 Student Enrollment and Financial Services 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 Student Enrollment and Financial Services 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), http://sites.jcu.edu/aid/pages/financial-aid-policies/standards-of-academic-progresssap/.

## Scholarships and Grants

John Carroll 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 http://sites.jcu.edu/aid/pages/types-of-aid/.

## 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 mid-June to December of their senior year. Applications are available only for submission at www.goarmy.com/rotc. Current college students may also compete for a variety of campus-based scholarships, when available, ranging from two to four years, by contacting the Recruiting Office, Department of Military Science, at 216-397-4286 or 4421.

The scholarship provides full tuition and required fees, a $\$ 1200$ yearly book allowance, plus a monthly stipend from $\$ 300$ to $\$ 500$ during the normal school year. Scholarship winners who reside in JCU campus housing receive free standard 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 about these opportunities.

## 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 http://sites.jcu.edu/aid/ pages/types-of-aid/.

## 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 http://sites.jcu.edu/aid/pages/types-of-aid/. 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 first-year students. 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. John Carroll also 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 http://sites.jcu.edu/aid/pages/types-of-aid/.

## 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 http://sites.jcu.edu/aid/pages/types-of-aid/.

## 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 http://sites.jcu.edu/aid/pages/types-of-aid/.

## 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 http://sites. jcu.edu/aid/pages/financial-aid-policies/.

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

## Contact Information

The Office of Student Enrollment and Financial Services 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. Beginning with the Class of 2019, the primary residence of the parent or legal guardian must be within 35 miles of the John Carroll campus.

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 newly renovated Murphy Hall opened in August 2014. The transformed building achieved LEED Silver Certification-the first building on campus to secure this distinction.

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. Hamlin Hall serves as the residential location for the fraternity and sorority life community.

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, Dolan, and Campion to promote class unity. Fraternity and sorority floors can be found in 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 http://sites.jcu.edu/reslife/.

## 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 Office of Student Engagement. They also have a Commuter Lounge, room 46 in the Student Center. 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 broadcast 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.

## Student Engagement

The Office of Student Engagement 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, the office helps students gain the knowledge, skills, and attitudes necessary to be leaders.

The office offers many services and programs, such as the Student Union, Student Union Programming Board, Orientation, leadership development, commuter services, student organization advisement, Homecoming, Christmas Carroll Eve, Senior Week, event/facility request, University vehicle reservations, and the posting of materials on campus bulletin boards. More information can be found on the Student Engagement website: http://sites.jcu.edu/studentactivities/.

## Student Organizations

Student organizations represent an effective way to get involved on campus while pursuing a personal interest. John Carroll has many such organizations that focus on service, Greek life, academics, culture, and a variety of social activities.

A complete list of active student organizations can be found at:
http://sites.jcu.edu/studentactivities/pages/student-organizations/.
A student who has the initiative and an idea for an organization is welcome to work with the Office of Student Engagement and create a new group.

## Student Union Programming Board (SUPB)

The Student Union Programming Board (SUPB) is responsible for planning campuswide and off-campus activities for most Thursday, Friday, and Saturday nights when classes are in session. Some of its traditional events include the annual Streak Week Hypnotist and Graffiti Party for first-year students, Cleveland professional sporting events, Homecoming and Family Weekends, CarrollFest, informal dances, and a regular comedian series. Other favorites include late-night events such as bingo and movies on campus. More information can be found on the SUPB website at: http:// sites.jcu.edu/supb/.

## Fraternity and Sorority Life

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. Formal recruitment occurs early in the fall semester. The Fraternity and Sorority Life website provides specific information regarding the community, including the recruitment process. The organizations are listed below.

| Fraternities | Sororities |
| :--- | :--- |
|  |  |
| Beta Theta Pi $(\mathrm{B} \Theta \Pi)$ | Chi Omega (X $\Omega)$ |
| Delta Tau Delta $(\Delta \mathrm{T} \Delta)$ | Gamma Phi Beta (ГФB) |
| Lambda Chi Alpha ( $\Lambda \mathrm{XA})$ | Kappa Alpha Theta (KA $)$ |
| Sigma Phi Epsilon ( $\Sigma \Phi)$ | Kappa Delta (K $\Delta)$ |
|  | Kappa Kappa Gamma (KKГ) |
|  |  |

## 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 of 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 2016-17 academic year alone, it was possible to hear, among many others, moral theologian David Hollenbach, S.J., talking about the refugee crisis; political scientist Andrew Yeo discussing U.S. policy toward the Korean peninsula; sociologist Cassi Pittman on the residential patterns of African Americans; and Richard J. Kramer, president of the Goodyear Tire and Rubber Company. In addition, the Cultural Awareness Series included speakers such as Bree Newsome, a filmmaker, musician, and political activist; and Jose Antonio Vargas, a journalist and immigration rights advocate.

## Music: Vocal, Instrumental Ensembles and Organ

Vocal and instrumental experiences on campus provide a wealth of opportunities for musically inclined students. The University offers student activities, organizations and variable-credit course options in both solo and ensemble music performance. These experiences include class voice and guitar, as well as ensembles such as the Chapel Ensemble, Jazz Ensemble, and Wind Ensemble.

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.

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, women's volleyball, and men's rugby all have coaches, while ultimate Frisbee, women's basketball, sailing, field hockey, and men's volleyball are completely student-led.

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

The Department of Recreation, Intramural and Club Sports offers a wide variety of group fitness classes to students, faculty, and staff. Examples include toning, yoga, Pilates, cycling, Zumba, stretch \& strengthen, and dance.

The campus athletic facilities include the Johnson Natatorium, which has a swimming pool, diving well, electronic timing system, and new scoreboard. 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 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 practice; 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 weighttraining 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 Don Shula Stadium, which opened in fall 2003, is home to the Blue Streak football, soccer, track, and lacrosse 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 instructional and recreational play.

More information about 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's events.

## 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 thereby improve the University.

## Outstanding Student Leader Award

The Outstanding Student Leader Award is designed to recognize up to two students in each class who, through dedicated leadership and involvement, have made significant contributions to improving the campus culture during the past year in the following areas: faith and justice; diversity and inclusion, health and wellness; and leadership of their peers.

## 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, 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 "Of the Year" Award

These annual awards are given by the Student Union to an organization and individuals that have distinguished themselves in each of the following categories:

- Student Organization of the Year
- Student Organization Leader of the Year
- Student Organization Advisor of the Year
- Student Senator of the Year


## 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 Howrath Award; Deloitte Alumni Awards; Ernst \& Young Awards; Grant Thornton Awards; HW \& Co. Award; Institute of Internal Auditors Award; Jarosz Family Foundation Award; KPMG LLP Awards; Lubrizol Corporation Awards; Maloney + Novotny Award; McGladrey 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 first-year chemistry student; Lubrizol Award for distinctive achievement in chemistry; Hypercube Scholar award for outstanding student in Physical Chemistry; Undergraduate Award in Analytical Chemistry (American Chemical Society); Honor Awards for outstanding first-year 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).

## 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 an entering first-year student 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

Awards: The Tim Russert Department of Communication and Theatre 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; Joan Louise Cunniff Award in Interpersonal Communication; Kathryn Dolan Award for Department Service. Scholarships: Austin Freely Scholarship in Debate; 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; Joan Louise Cunniff Scholarship in Interpersonal Communication; Kathryn Dolan Scholarship of Department Service; Lawrence Druckenbrod Scholarship in Ethics; Alan R. Stephenson Scholarship for Excellence in Communication Media; Fred McClure Scholarship for the most promising sophomore; Mary E. Beadle Scholarship in Communication.

Tim Russert Fellowship: The NBC/John Carroll University "Meet the Press" Fellowship, created to honor Tim Russert (JCU '72), is awarded annually to a graduating senior from either The Tim Russert Department of Communication and Theatre or the Department of Political Science at John Carroll University. The student spends 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 accessing the following website: http://sites.jcu.edu/ mtpfellowship/.

## East Asian Studies

The Alexander C. Millar Scholarship for Study in Japan seeks to increase cultural exchange between Japan and American students by awarding money on a yearly basis to a student to study in Japan. Candidates are recommended through an application and interview selection process conducted by a faculty committee. Recipients are required to complete a project while in Japan and present the completed project upon return to an appropriate JCU Forum. All candidates must also be judged eligible for receiving financial aid through the Office of Financial Aid.

The Fr. Richard J. Schuchert, S.J., Memorial Prize in East Asian Studies is awarded annually to the John Carroll student who has completed at least two years of an East Asian language with a 3.0 GPA and best demonstrates a commitment to the understanding of East Asia through participation in East Asian activities. Secondary consideration is given to the student's overall GPA and progress toward a minor or major in East Asian Studies. The prize consist of a cash award and certificate. The Fr. Schuchert Prize was established in memory of the late Richard J. Schuchert, S.J., a Toledo native who taught linguistics in the Department of English at John Carroll University from 1962 to 1979. Prior to coming to John Carroll, he spent twelve years in Japan as a teacher and missionary. He worked actively to help establish John Carroll University's East Asian Studies Program.

## Economics

John Marshal 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 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 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.

## 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. For sophomores: Christopher Roark Memorial Award.

## 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; Clifford Finance Award to an outstanding senior in finance.

## History

George N. Vourlojianis Outstanding Senior Award; Fr. Howard T. Kerner, S.J., Scholarship Award; Research in Women's History Award.

## Management, Marketing and Supply Chain

Outstanding Management Student Award; Outstanding Marketing Student Award; Outstanding Supply Chain Student Award; Outstanding Human Resource Management 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 supply chain majors: Joseph and Elizabeth Feeley Scholarship. For rising senior management, marketing, supply chain and human resource management 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

Scholarships: The U.S. Department of the Army annually awards ROTC fulltuition 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 campus-based scholarships, when available, ranging from two to four years by contacting the Recruiting Officer, Department of Military Science, at 216-$397-4286$ or the department office at x4421.

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 scholarship opportunities.

Several private scholarships are also offered each semester for several thousand dollars. All cadets can compete for the USAA Scholarship, the Armed Forces Insurance General Melvin Zais Army ROTC Scholarship, the Raytheon Scholarship, the Joseph Cribbins Scholarship, the Association of the United States Army Scholarship, the Government Employees Insurance Company (GEICO) Scholarship, the Distinguished Achievement Scholarship, and the General James M. Rockwell Memorial Scholarship. Sophomores can compete for the AFCEA scholarships and the Fred Hartman Memorial scholarship. Juniors and Seniors can compete for the AFCEA scholarship and the Medal of Honor Scholarship in addition to all of the above listed scholarships.

Student Awards: 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; $82^{\text {nd }}$ 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 elementary, intermediate, and upper-division 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 majors or minors, French majors, or Spanish majors 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

The Kathleen L. Barber Scholastic Achievement Award is given annually to senior political science majors who have demonstrated outstanding academic achievement in the discipline of political science. This award honors those seniors whose work reflects scholastic excellence, and whose scholastic achievements are complemented by a noteworthy commitment to service and initiatives connecting classroom experience to the local community and the world. The John V. Czerapowicz International Relations Award is given to a graduating senior who has achieved academic excellence in the study of international relations and participated in activities related to foreign affairs. The Department of Political Science Exemplary Service Award is given to a graduating senior whose service and academic scholarship testify to the ideals embodied in the mission of John Carroll University.

The NBC/John Carroll University "Meet the Press" Fellowship, created to honor Tim Russert (JCU '72), is awarded annually to a graduating senior from either The Tim Russert Department of Communication and Theatre or the Department of Political Science at John Carroll University. The student spends 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 accessing the following website: http://sites.jcu.edu/mtpfellowship/.

## 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 Alpha Kappa Delta, the national sociology honorary society, and nominated for the American Sociological Association honors program.


## Student Services

## Campus Ministry

The Department of Campus Ministry encourages the students, faculty, and staff of JCU 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 and in a variety of social milieus. We have identified the following statements 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, small faith communities, and immersion experiences.
- We recognize Eucharist as our primary liturgical experience, while also celebrating a diversity of faith and spiritual perspectives that seeks both wisdom and fuller spiritual life.

Faith and justice are at the heart of the programs, liturgies, retreats, immersions, small faith communities, interfaith activities, and social justice opportunities that Campus Ministry promotes. Students are encouraged to explore, deepen, and celebrate their faith, be they Catholic, non-Catholic, Christian, Muslim, Jew, or unaffiliated.

Campus Ministry organizes immersion experiences for the University community. These experiences offer students the opportunity to travel with faculty and staff to rural, urban, domestic, and international destinations, where we serve others, experience their cultures, and build lasting friendships. Recent locations include Nicaragua, Ecuador, Guatemala, El Salvador, Honduras, Jamaica, the U.S./Mexico border, Pine Ridge Native American Reservation, Appalachia, 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 Carroll Faith Communities (small faith-sharing groups) offer students an ongoing way to integrate faith into their college experience. Groups are student-led and consist of six to ten students who meet weekly in the residence halls.

Campus Ministry also serves the community by celebrating our 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 Ministers.

## CENTER FOR CAREER SERVICES

The Center for Career Services assists students in three areas: career decisionmaking, career-related skills development, and connecting to opportunities.

## Career Decision-Making

Career Services staff assist students in making decisions about choice of major, summer jobs, internships, graduate/professional school and post-graduation employment or gap year experiences. Students can schedule individual appointments with advisors who will guide them through and train them in the decision-making process. This work may include personal and skills assessments, online research and informational interviews; the goal is to ensure students are learning how to engage in a process that leads to well-reasoned decisions.

## Career-Related Skills Development

Students have the opportunity to develop the skills required to identify and secure career-related experiences and jobs through individual appointments with advisors and attending workshops. The approach Career Services takes is educational, as students will need these skills throughout their lives as their career and work lives progress. Workshops include topics such as resume/cover letter writing, networking, job/internship search, interviewing, and how to be a professional.

## Connecting to Opportunities

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 Center for Career Services during fall and spring semesters and are available for both full-time entry-level positions and internships.
- All events sponsored by Career Services, as well as local and other national career development and networking events, are posted in Career Connection.


## 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.

## Alumni Network

The John Carroll network of alumni is strong. Students can access this network in a number of ways, including the JCU Alumni Network through Alumni Relations http://mentoring.jcu.edu/ and the 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 building their own professional network of contacts.

## Center for Career Services Website

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

## THE CENTER FOR DIGITAL MEDIA

The Center for Digital Media (CDM) represents a joint effort between Information Technology Services and Grasselli Library. The goal of the CDM is to provide faculty and students with the resources and support they need to create sophisticated presentations, videos, 3D-printed objects, graphics, and other forms of multimedia that can be used to enhance teaching, learning, research, and creativity at John Carroll. The Center, located on the main floor of Grasselli Library, provides the JCU 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 maintains a collection of cameras and other equipment available for checkout free of charge through the library's circulation desk.

## CENTER FOR STUDENT DIVERSITY AND INCLUSION

Guided by John Carroll University's mission, vision, and core values, the Center for Student Diversity and Inclusion develops programs to educate the entire campus community on issues of diversity, inclusion, and multiculturalism. At the same time, it provides services and support for students from historically underrepresented populations. The Center nurtures a sense of belonging for students from diverse backgrounds. It also 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 provide campus-wide programs that further the development of cultural competence and respect for diversity and social justice on the part of all students.
- To develop, implement, and evaluate programs and services that support historically underrepresented students in their personal development and transition throughout their John Carroll University experiences.
- To provide leadership opportunities for underrepresented students that focus on engagement in campus and community organizations.
- 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). The library has a laptop-lending program for student use on the premises. CDM equipment, including cameras 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 faculty 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 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 server infrastructure; and support for virtual and physical 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 assistance to students, faculty, and staff through a centrally managed Service Desk. In addition, the Center for Digital Media (CDM), http://sites.jcu.edu/cdm/, has advanced computer systems and staff support to assist faculty in employing the most up-todate learning technologies in their curricula and students with incorporation and use of technology in their course work and projects.

Throughout the campus, there are more than 100 classrooms and labs equipped for advanced electronic multimedia presentation. More than 75 of these include
an instructor lectern with an integrated touch-screen control station, multimedia computer, DVD, and document camera. A number of classrooms have computers for every student. Most are Virtual Computers, which allow students to load different computer images to better meet their instructional needs. These classrooms and labs include specialized software packages selected by professors as supplements to classroom instruction. All sites are connected via local networks to the campuswide fiber optic 10 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.

## JOHN CARROLL UNIVERSITY POLICE DEPARTMENT

JCUPD is recognized as a police department under the Ohio Revised Code (ORC 1713.50), giving officers the same legal authority as municipal police officers. Campus police officers work to provide a safe and secure environment for all members of the John Carroll community by offering coverage 24 hours a day, 365 days a year. The JCUPD 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. JCUPD can be reached by calling x1234 from any campus phone, or off campus at 216-397-1234. Courtesy phones are located inside buildings throughout campus. The JCUPD website is: http://sites.jcu. edu/css/.

## Police Services:

- Responding to criminal, medical, fire, and other emergencies and alarms.
- Reporting and investigating criminal and student conduct violations.
- Responding to calls for service.
- Proactively patrolling the campus buildings, parking lots, and grounds.
- Liaising with local public safety agencies.
- Performing campus safety escorts.
- Providing information and assistance to students, parents, staff, and visitors.
- Providing planning and support for campus events.
- Providing crime awareness and prevention programs.


## Parking Services:

The Parking Office coordinates all campus parking functions, including:

- Information, assistance, and direction to anyone parking on campus.
- Issuing parking permits to students, faculty, staff, and visitors.
- Enforcing parking rules and regulations.
- Coordinating parking services for campus events.


## Dispatch Operations:

The campus dispatch operations are coordinated and staffed by JCUPD personnel. The dispatch center operates around the clock. The dispatch center is located in the Belvoir parking lot gatehouse. Dispatch duties include:

- Receiving and dispatching calls for JCUPD.
- Monitoring and dispatching campus fire alarms.
- Monitoring and dispatching campus security alarms.
- Monitoring facility systems after-hours.
- Dispatching shuttle buses.
- Assisting with parking, special events, and general information.
- Controlling access to the campus.


## Transportation Services:

During the academic year, JCUPD operates 2 shuttle buses that transport students between the main campus and the Green Road Annex building and parking lot, the Greater Cleveland Rapid Transit station, and area retail stores upon request. The hours of the shuttle service are:

- Monday through Thursday, 7:15 a.m.-12:30 a.m.
- Friday, 7:15 a.m.-8:00 p.m.
- Sunday, 5:00 p.m.-12:30 a.m.


## Administrative Services:

JCUPD provides other services to the campus community, including:

- Supervising the student EMS.
- Developing and exercising the University Emergency Management Plan.
- Operating the University Lost and Found.
- Fingerprinting services for student internship, service, and licensure.
- Providing crime awareness and prevention programs.


## OFFICE OF THE REGISTRAR

The Office of the Registrar is responsible for facilitating the registration process and for maintaining and preserving all University academic records. Additionally, the Office of the Registrar protects the rights of students under the Family Educational Rights and Privacy Act (FERPA).

Registration: Students register themselves for courses using BannerWeb. In general, registration occurs in November for the upcoming spring semester, in March for the upcoming summer terms, and in April for the upcoming fall semester. Changes in registration (e.g., adding/dropping a course, withdrawing from a course) can be processed in person with an Enrollment Services counselor in Rodman Hall, Room 205-206. For further information about registration, see page 110 of this Bulletin.

Transcripts: Students may request official transcripts by one of the following methods: 1) online via BannerWeb or http://jcu.edu/registrar/transcripts with a credit card; 2) by mail with a downloaded and signed request form (available at http://jcu.edu/registrar/transcripts) sent to the Office of the Registrar with cash or check; or 3) in person with cash or a check. To protect students and alumni, no telephone requests for transcripts will be honored. Transcripts are issued only at the request of the student. Please allow two weeks for the processing of all transcript requests. A fee of $\$ 5$ is required for each transcript requested. Transcripts are released only when all outstanding balances have been paid.

Access to grades: Each student has access to his/her own academic record and grades, on a read-only basis, via BannerWeb.

For additional services, see our website: http://www.jcu.edu/registrar/.

## 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.


#### Abstract

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, 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.
6. 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.

## STUDENT ACCESSIBILITY SERVICES

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

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

The University's "Policy on Disability-Related Grievances" can be accessed at the following webpage: Policy on Disability-Related Grievances.

## STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness 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 medication 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.

## UNIVERSITY COUNSELING CENTER

The University Counseling Center provides confidential counseling support for undergraduate and graduate students. Students can talk privately with a trained professional about any personal or academic concerns, such as relationship conflicts, anxiety, depression, family problems, or difficulty adjusting to the demands of college. Services include short-term individual counseling, psychiatry services, selfhelp resources, referrals to community services, and educational programs. The center also provides consultation services for faculty, staff, or students who have concerns about another student and are seeking guidance. Office hours are Monday through Friday, from 9:00 a.m. to 5:00 p.m. Students may schedule an appointment by calling 216-397-4283 or stopping by the front desk.


## Liberal Education at John Carroll University

A liberal education consists of two parts: studies in a core curriculum and study in a major field. The liberal arts deal with the creative, social, and scientific developments of past and present cultures, as well as their ideals and human values. These studies impart an appreciation for complexity and the ability to think critically, to solve and resolve problems, to write and speak with precision and clarity, and to use information ethically.

John Carroll's Integrative Core Curriculum is informed by the principles that issue from the University's mission as a Catholic and Jesuit institution of higher learning. Accordingly, this integrative curriculum emphasizes the development of whole 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 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 core curriculum 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 INTEGRATIVE CORE CURRICULUM: Description

John Carroll University's Integrative Core Curriculum provides the foundation and the structure upon which all students build the major focus of their university studies. This curriculum is designed with the understanding that a $21^{\text {st- }}$-century liberal education must provide students

- The capacity to deal with complexity, diversity, and change.
- A broad knowledge of the wider world through the study of science, society, and culture.
- Strong and transferable intellectual and practical skills, including communication, evidence-based reasoning, and problem solving (using multiple disciplinary perspectives).
- The ability to apply knowledge and skills in real-world settings.
- An understanding of social responsibility.

The courses that make up the core curriculum are informed by nine academic learning goals, which are rooted in the fundamental Jesuit heritage of the University and the particular history of John Carroll. These learning goals are value statements about what the University deems essential for each student's educational experience. They highlight key aspirations that the John Carroll faculty and administration have for our students. We expect that graduates of John Carroll University will be able to:

1. Demonstrate an integrative knowledge of the human and natural world.
2. Develop habits of critical analysis and aesthetic appreciation.
3. Apply creative and innovative thinking.
4. Communicate skillfully in multiple forms of expression.
5. Act competently in a global and diverse world.
6. Understand and promote social justice.
7. Apply a framework for examining ethical dilemmas.
8. Employ leadership and collaborative skills.
9. Understand the religious dimensions of human experience.

The Integrative Core Curriculum ensures that these nine academic learning goals are met-not superficially, but in multiple places and times throughout the student's undergraduate years so that the skills, knowledge, competencies, and values they seek to instill are reiterated, deepened, and actualized.

The principles underlying the Integrative Core Curriculum are the following:

- The curriculum highlights foundational competencies in writing, oral expression, quantitative analysis, and technological/information literacy; and it ensures that these competencies are reiterated and refined in subsequent courses both in the Core and in major requirements.
- The curriculum includes integrated course work that combines more than one content area and requires students to hone critical thinking and problemsolving skills across disciplines. Integrated courses create communities of shared inquiry and foreground the responsibility our students have as global citizens, stewards of the earth, and creators of just societies. The integrated course work prepares students to act as leaders in a world of increasing complexity, greater collaboration, and interdependency.
- The curriculum develops students' intercultural competence through its focus on global studies and on languages: students demonstrate competency in a language other than English. The curriculum also emphasizes human diversity with courses devoted to issues in social justice.
- The curriculum underscores essential principles of Ignatian pedagogy by valuing the rich history of Jesuit education with its emphasis on currency, relevance, communication skills, care for the learning of each student, discernment, and justice. The curriculum also highlights disciplines traditionally part of the Jesuit heritage in higher education with courses in philosophy, theology and religious studies, and the creative and performing arts. Courses on issues in social justice also consider important questions about justice, diversity, and ethics.

John Carroll's Integrative Core Curriculum asks students to be engaged learners who bring new knowledge into being through their study and collaboration and who do so with the realization that all knowledge has the capacity to raise ethical questions, and that the questions they raise and answer are meaningful and liberating.

## THE INTEGRATIVE CORE CURRICULUM: Content

## Course Requirements <br> FOUNDATIONAL COMPETENCIES (9-12 credits)

Written Expression: 1 or 2 courses, 3-6 cr., depending on placement
Oral Expression: 1 course, 3 cr .
Quantitative Analysis: 1 course, 3 cr.

## LANGUAGE ( $0-9$ credits, depending on placement)

Students must complete the 201 level or equivalent in the language they continue from high school; those who place above this level (201) are exempt from the requirement. Students must complete a two-course sequence (101-102) if they begin a new language at John Carroll.

## DISTRIBUTION COURSES (9 credits)

Humanities Experience: 1 course, 3 cr.
Social Science Experience: 1 course, 3 cr.
Natural Science Experience: 1 course, 3 cr.

## INTEGRATED COURSES ( 9 credits)

Engaging the Global Community: 1 course, 3 cr.
Linked Courses: 2 co-requisite courses, 6 cr.

- Foundational writing (EN125 or EN120/121) is a prerequisite for all integrated courses.


## JESUIT HERITAGE (16 credits)

Philosophy: 2 courses, 6 cr.
Theology \& Religious Studies: 2 courses, 6 cr.
Issues in Social Justice: 1 course, 3 cr.
Creative and Performing Arts: 1 course, 1 or more cr.

## CORE REQUIREMENTS IN THE MAJOR

Additional writing course
Additional presentation component
Capstone experience

## FOUNDATIONAL COMPETENCIES

The Integrative Core Curriculum highlights four areas of foundational competencies: written expression, oral expression, quantitative analysis and technological/informational literacy. In most cases, students will be introduced to these competencies during their first year at John Carroll. The skills learned in these courses are reiterated throughout the entire curriculum, and students receive additional training in writing and oral communication, specifically, in their majors. Technological and information literacy is embedded in the writing, speech, and quantitative analysis courses. All courses in the foundational competencies include discussion of ethical argument and ethical use of data.

## Written Expression

In foundational writing courses, students learn the expectations of academic writing, including the discovery and revision components of the writing process, and other principles of coherent and persuasive writing. These courses focus on the development of fundamental writing skills not tied to any particular discipline.

Requirement: Depending on placement, students take either one or two courses in foundational writing, EN 125 (Seminar on Academic Writing) or EN 120 and EN 121 (Developmental Writing I and II). The level of placement 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 246 (English) for more details.

Students must earn at least a C- in their foundational writing course (either EN 125 or EN 121, which concludes the development writing sequence) in order to fulfill the Core requirement for written expression. Students who earn a grade below C-in these courses will be required to re-take the course.

Students in the Honors program can fulfill their Core written expression requirement by successfully completing (with a C- or above) HP 101, the Honors Colloquium.

Competence in written expression is further developed through writing required in all integrated courses and in one writing-intensive course in the major.

## Oral Expression

Students are expected to become competent in the effective oral presentation of ideas in informative, argumentative, and persuasive situations and to use appropriate technology. Based on communication theory, competence in oral expression includes the study of audience analysis and adaptation, critical listening, and research. This competency is introduced in a foundational course in oral expression that focuses on general speaking skills not tied to any particular discipline.

Requirement: Students take CO 125, Speech Communication to fulfill their foundational oral expression requirement. Students further develop competence in oral expression in a presentation component incorporated in their major course work.

## Quantitative Analysis (QA)

Students are expected to demonstrate competence in quantitative analysis, that is, the ability to apply mathematical and logical tools to solve real-world problems. A course in quantitative analysis asks students to interpret and reason with numeric data within a particular, authentic context. Such a course demands more than routine calculation; rather, students in a quantitative analysis course develop sufficient analytical skills to find and pose precise questions that can be appropriately analyzed by quantitative methods, draw inferences from data, represent data, think critically about quantitative statements, and recognize sources of error. Because quantitative analysis is closely tied to a context, QA courses are offered in several academic departments.

Requirements: Students take one foundational QA course to fulfill their Core requirement.

## LANGUAGE

Language study promotes students' development as more competent global citizens. Language courses put students in direct interaction with authentic cultural materials created in other languages and increase their capacity to understand the perspective of other people and cultures. When students communicate in another language, even at a basic level, they experience new modes of speaking and new modes of listening and interpreting the expressions of others. Language study has always been part of Jesuit education, but now, at the beginning of the $21^{\text {st }}$ century, increased global connectedness makes it all the more important that our students have experience communicating in languages other than English.

Courses in language study actively involve the four skills of language learning: speaking, listening, reading, and writing. Courses also introduce students to cultural materials relevant to the area of language study.

Requirements: Students must complete the 201 level or equivalent (beginning intermediate level) if they continue with the same language that they studied in high school; those who place above this level (201), as determined by a proctored placement test given on campus, are exempt from the Core language requirement. If students choose to start a new language rather than continue with their previously studied language, they must complete a two-course sequence (101-102). Language courses are offered by the Department of Classical and Modern Languages and Cultures (CMLC).

## DISTRIBUTION COURSES

As a liberal arts institution, John Carroll University prizes its dedication to all academic realms. To ensure that our students receive a broad introduction to academic inquiry, students will take courses that introduce them to the foundational knowledge and methods in the Humanities, the Social Sciences, and the Natural Sciences.

Requirement: Students take one humanities course (HUM), one social science course (SOC), and one natural science course (SCI).

## INTEGRATED COURSES

The major challenges faced by societies have always been complex and are becoming even more so. In order to appreciate these complexities and to work toward just solutions, John Carroll students need the ability to integrate knowledge from more than one perspective or discipline. Thus, part of the responsibility of a liberal arts core curriculum is to assist students in gaining that competency through exposure to interdisciplinary and integrated models of learning. This competency will help them better understand past and present while preparing for the future.

Because all integrated courses have a writing component that builds on the skills students learn in their foundational writing course(s), foundational writing (EN 125 or EN 120/121) is a prerequisite for all integrated courses.

## Engaging the Global Community (EGC)

The global interconnectedness of the $21^{\text {st }}$ century requires a curricular component in which students engage with diverse cultural perspectives and develop a sense of global responsibility. Global interdependence brings about new widely-shared meanings, values, and understandings of the natural and social worlds. An emphasis on global learning recognizes that every person occupies simultaneously a range of positions between the local and global and that changes in one part of the system will result in changes in other parts. Because issues of global impact likewise cross disciplinary and national boundaries, EGC courses are interdisciplinary: they are
either team-taught by professors from different disciplines or taught by a single professor who is part of an interdisciplinary learning community.

Requirement: Students take one EGC course.

## Linked Courses

Few critical issues facing us today can be adequately addressed through a single perspective. Equipping our students to examine real-world problems and key intellectual questions through multiple disciplinary lenses is the goal of our linked courses. Two 3-credit courses from different departments and disciplinary perspectives will focus on a shared theme or a shared set of topics and ask students to use the methodologies of each discipline to gain a deeper understanding of the shared theme, intellectual question, and/or real-world problem.

Requirement: Students take two linked courses, which are co-requisites, in the same semester.

Note on linked courses: Students must sign up for both courses. They may not drop a class without permission of the instructors. If they must drop one class, they may continue in the other class, but they will need to complete another set of linked courses to fulfill the Core requirement.

## JESUIT HERITAGE

As a Jesuit university, John Carroll values the essential principles of Ignatian pedagogy. While the entire Core Curriculum addresses elements of Ignatian teaching, this component of the curriculum underscores fields of study traditionally part of the Jesuit heritage in higher education: philosophy, theology and religious studies, issues in social justice, and the creative and performing arts.

## Philosophy (PL)

Philosophy provides students the opportunity to reflect on the most fundamental questions of our lives that often go unexamined. Courses in philosophy acquaint students with the intellectual and moral traditions of world civilizations and aim to develop the critical thinking skills necessary to question assumptions, to weigh propositions fundamental to personal responsibility, and to consider the ethical implications of their decisions. An understanding of philosophy is one of the hallmarks of Jesuit education.

Requirement: Students take two courses in Philosophy to complete their Core requirement. One course must be from the Knowledge \& Reality category, and one course must be from the Values \& Society category. Taking a course from each of these categories ensures that students experience a broad range of areas, major themes, and problems within philosophy. Knowledge \& Reality courses explore fundamental questions of nature, existence, and understanding. Values \& Society courses explore fundamental questions of humans' relationship to one another and to the world; and these courses also focus specifically on questions of ethics.

Courses in each category are at the 200 and 300 level; the courses have no prerequisites, and students are not required to take a 200 -level course before a $300-$ level course.

## Theology and Religious Studies (TRS)

Courses in Theology and Religious Studies provide students with the knowledge and skills necessary for the analysis of religion; for investigation of the historical development and contemporary practice of particular religious traditions; for critical reflection on personal faith as well as sympathetic appreciation of the beliefs of others; and for resources to understand and respond to the religious forces that shape our society and world. Because of the University's commitment to its Catholic and Jesuit heritage, particular attention is paid to the Roman Catholic tradition.

Requirement: Students take two courses in Theology and Religious Studies to complete their Core requirement: one lower-division course ( 100 or 200 level) and one 300 -level course. The courses have no prerequisites; however, it is recommended that students taking Core TRS courses have either completed their foundational writing requirements or have been placed in EN 125.

## Issues in Social Justice (ISJ)

With its emphasis on currency, relevance, care for the learning of each student, and discernment, the Integrative Core Curriculum highlights essential principles of Ignatian pedagogy. The Issues in Social Justice component asks that students consider important questions about justice, diversity, and ethics. Students are expected to be engaged learners who bring new knowledge into being through study and collaboration, realizing that knowledge has the capacity to raise ethical questions and that these questions are meaningful and liberating.

In Issues in Social Justice courses, students learn to understand and interrogate concepts of inclusion and empowerment and to analyze systems and structures of oppression and marginalization. These courses pose questions about equality, access, multiculturalism, economic and social barriers, or discrimination based on gender, sexuality, class, race, and/or ethnicity. These courses challenge students to recognize institutional impediments or de facto assumptions that result in an individual or group having less than full voice and participation in societies. Issues in Social Justice courses focus on historical issues, contemporary problems, or both.

Requirement: Students take one Issues in Social Justice course. These courses are offered in several academic departments.

## Creative and Performing Arts (CAPA)

From their beginnings, Jesuit colleges and universities were distinguished by their attention to the arts and architecture, painting, sculpture, music, theatre, dance, and poetry as methods of religious communication. The practice of any art form gives students a new mode of expression, a new voice.

To fulfill this requirement, students may take a variety of courses, including creative writing, screenwriting, playwriting, theatre performance, photography, music, and dance.

Requirement: Students take one Creative and Performing Arts course, which may be 1 or more credits. Some CAPA courses are graded Pass/Fail.

## CORE REQUIREMENTS IN THE MAJOR

Students will continue to develop competencies in written and oral expression within their majors; they also will participate in a capstone experience in their major, which represents the culmination of their academic experience.

Additional Writing: All students, as part of their major, will take a course that emphasizes writing skills within the discipline.

Additional Presentational Skills: Selected courses and other requirements in the major allow students to further cultivate skills in oral presentation and the use of technology to collect and share information.

Capstone Experience: Capstone experiences are valuable not solely for the opportunity they afford the student to demonstrate mastery of skills and knowledge in a specific discipline, but also because they represent the culminating expression of a broad liberal arts education that prepares students for future success in a wide range of activities. The capstone experience focuses on some feature of the student's major area(s) of interest and requires the disciplined use of skills, methodology, and knowledge taught through the curriculum. Capstones meet one or more of the following criteria:

- Synthesize and apply disciplinary knowledge and skills.
- Foster reflection on undergraduate learning and experience.
- Demonstrate emerging professional competencies.
- Apply, analyze, and/or interpret research, data, or artistic expression.

The capstone may be satisfied through a course, created work or product, or some form of experiential learning; the capstone usually occurs during the student's junior or senior year.

## ADDITIONAL INTEGRATIVE CORE CURRICULUM POLICIES

## Waiver of Core Requirement

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.

## Fulfilling Core Requirements

Students may not use a Core course to fulfill more than one Core requirement. However, students may use Core courses to fulfill requirements in majors or minors, depending on the expectations of the academic departments and programs.

## Transfer of Credits

Students who transfer in 0-44 credits to John Carroll University from other institutions are responsible for all Core requirements not already met through transferred course work.

Students may transfer in credits for the Integrative Core Curriculum, but the courses transferred in must conform substantially to the requirements, including learning goals, of Core courses offered at JCU.

Given the centrality to mission of the Jesuit Heritage component in the Integrative Core Curriculum, students who bring in 0-44 credits to JCU may apply no more than 6 transfer credits to the Jesuit Heritage portion of the Core. No more than 3 credit hours may count toward fulfilling the Philosophy requirement; no more than 3 credit hours may count toward fulfilling the Theology and Religious Studies requirement.

Requests for transfer credit require submission of an academic petition, unless transfer credit has already been given automatically by the Registrar.

Students who transfer in $\mathbf{4 5}+$ credits from other institutions may waive most of the Core Curriculum requirements with the following exceptions:
a. Students must transfer in or take the following courses at John Carroll to meet Core or program prerequisites:
(1) EN 125, Seminar on Academic Writing, or its equivalent.
(2) Some programs of study require foundational course work in oral communication, foreign language, or quantitative analysis. The prerequisites for these programs will not be waived.
b. In addition, students who transfer in $45+$ credits must complete all of the following core requirements at John Carroll:
(1) One linked pair of courses from the Integrated Courses component of the Core curriculum.
(2) One Engaging the Global Community course from the Integrated Courses component of the Core curriculum.
(3) A minimum of two courses (6 credits) from the Jesuit Heritage component of the Core curriculum.

## 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 their first year. Some other departments also encourage early determination. Later choice may result in prolonged completion of the degree program.

Students apply to the department of their choice to request acceptance into a major by completing and returning an Application for Undergraduate Major Declaration, an online form available on the webpage of the Office of the Registrar. 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 requested through an Academic Petition and approved by the 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 bachelor of arts degree (B.A.) and bachelor of science degree (B.S.).

## 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.

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

The College of Arts and Sciences offers a number of minors. The Boler School of Business offers a minor in business and a minor in economics. 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 annual Celebration of Scholarship.

## 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 both undergraduate and graduate students with all aspects of the writing process.


## 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.

## APPLYING FOR ADMISSION

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

Prospective transfer students and part-time students should refer to the pertinent admission procedures described on pages 20-21 of this Bulletin.

Applicants must follow the general University regulations on admission, explained fully in the admission section of this Bulletin, pages 17-33.

## MAJORS AND DEGREES

The College of Arts and Sciences offers programs of study in 34 majors, leading to the degrees of Bachelor of Arts (B.A.), Bachelor of Arts in Classics (B.A.Cl.), and Bachelor of Science (B.S.).

The major is the primary field of undergraduate study and academic specialization. The major may consist of a structured plan of study within a single discipline, such as English, Sociology, or Physics; or a program of study across more than one discipline, such as Sports Studies, Humanities, or East Asian Studies.

Specific requirements for all academic majors offered within the College of Arts and Sciences, as well as course descriptions, can be found in this Bulletin, beginning on page 124.

Majors may be taken in the following fields, leading to a B.A. or B.A.Cl.; specialized concentrations are listed in italics under the appropriate majors:

| Art History | Humanities |
| :--- | :--- |
| Classics | Peace, Justice, and Human Rights |
| Classical Languages | Philosophy |
| Classical Studies | Critical Social Philosophy |
| Communication and Theatre | Health, Ethics, and Science |
| Communication Studies | History of Philosophy |
| Digital Media | Philosophy, Law, and Politics |
| Integrated Marketing Communication | Physics |
| East Asian Studies | Political Science |
| Economics | Global and Foreign Area Studies |
| Education | Law and Society |
| Adolescent/Young Adult | Methods and Spatial Analysis |
| Early Childhood | Sociology and Criminology |
| Middle Childhood | Aging Studies |
| English | Criminology |
| Creative Writing | Diversity, Culture, \& Inclusion |
| Literature | Forensic Behavioral Studies |
| Professional Writing | Human Service, Health, \& Social |
| French and Francophone Studies | Justice |
| French Language | Spanish and Hispanic Studies |
| French Studies | Teaching Mathematics |
| Gender, Sexuality, and Women's Studies | Theology and Religious Studies |
| History |  |

Majors in the sciences may be taken in the following fields, leading to the B.S.; specialized concentrations are listed in italics under the appropriate majors:

| Biology | Mathematics |
| :--- | :--- |
| Neuroscience | Physics |
| Cell and Molecular Biology | Psychology |
| Neuroscience | Child and Family Studies |
| Chemistry | Forensic Psychology |
| Biochemistry | Industrial/Organizational Psychology |
| Chemical Physics | Mental Health Services |
| Neuroscience | Neuroscience |
| Computer Science | Sports Studies |
| Computer Science with Healthcare | Sport and Athletic Administration |
| Information Technology | Sports, Fitness and Wellness for |
| Data Science | Diverse Populations |
| Engineering Physics |  |
| Environmental Science |  |
| Exercise Science |  |
| Interdisciplinary Physics |  |

## Integrated 3/2 Degree Programs

B.A. in Sociology from John Carroll plus a Master's Degree in Social Work from Case Western Reserve University.
B.S./B.A. from JCU plus B.S. in Engineering from CWRU.

## Integrated 3+3 Program with Case Western Reserve University School of Law

B.A./B.S. from JCU plus J.D. from CWRU School of Law.

## Optional Minors

In addition to majors, the College also offers optional minors, which normally consist of 18 to 21 semester hours of study. For more detailed information, consult the department and course description sections of this Bulletin, beginning on page 124.

Optional minors may be completed in the following fields:

Actuarial Science
Art History
Biology
Business (through Boler School of Business)
Catholic Studies
Chemistry
Classical Studies
Communication
Computer Science
Computer Science with Healthcare
Information Technology
Creative Writing
Data Science
East Asian Studies Interdisciplinary
East Asian Studies Language
Economics
Engineering Physics
English: Creative Writing
English: Literature
English: Professional Writing
Entrepreneurship
Exercise Science
Foreign Affairs
French and Francophone Studies

Gender, Sexuality, and Women's Studies
German
Greek
History
Humanities
Latin
Leadership Development
Mathematics
Modern European Studies
Peace, Justice, and Human Rights
Philosophy
Physics
Political Science (General)
Population and Public Health
Professional Healthcare
Preparation
Psychology
Sociology and Criminology
Spanish and Hispanic Studies
Statistics
Theatre
Theology and Religious Studies
United States Politics

## Interdisciplinary Concentration in Neuroscience

The interdisciplinary concentration in Neuroscience 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 or higher in BL 155158 and CH 141-144 is required for admission into the concentration.

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, 497 N (or an additional CH or PS course approved by the neuroscience coordinator). A GPA of 3.0 is required for enrollment in PS 497 N .

Required courses for chemistry majors: BL 155, 156, 157, 158, 360, 360L; CH 141, $142,143,144,221,222,223,224,435,436$; PS $326,426,497 \mathrm{~N}$ (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 $155,156,157,158,360,360 \mathrm{~L}$; 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.

## General Requirements for Degrees

1. Candidates must complete a minimum of 120 credit hours, including all Core and major requirements, with an average of at least 2.0 (C) for all course work completed at John Carroll University.
2. Candidates must complete all of the course and proficiency requirements for the degree sought.
3. 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.
4. 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.
5. 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.
6. Candidates must file an application for degree by the date specified in the academic calendar.
7. Candidates must fulfill all financial obligations to John Carroll University.

## 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 evidence such as educational record, test scores, letters of recommendation, and writing samples.

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.

For further information about the program requirements, visit http://sites.jcu.edu/honors/. Also, see the separate section in this Bulletin starting on page 310.


## JohnM. 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 seven 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.A.). These programs are fully described in The Graduate Studies Bulletin: http://sites.jcu.edu/graduatestudies/pages/current-students-2/bulletin-archive/.

## MISSION AND CORE VALUES

Our mission: The Boler School of Business graduates students who live inspired lives. They lead with an ethical foundation, excel in service with and for others, and exemplify professional excellence, a strong work ethic, and superior decision-making.

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. Interested students may request admission directly to the Boler School of Business by so designating on the Common Application, or by denoting an intention to be admitted to Boler when registering for summer new student orientation.

Students enrolled in the College of Arts and Sciences who wish to apply to transfer to the Boler School must have an overall GPA of 2.0 or higher, and must complete AC 201, EC 201, and MT 130 with a minimum grade of C. If any of these courses are transferred into John Carroll from other institutions, then a minimum grade of C must be attained in at least 6 hours of course work in the Boler School of Business.

Interested students should complete the Declaration of Major through the Registrar's website and submit it to their academic advisor. After reviewing credentials, the Boler School Dean's Office will advise students whether they are (a) accepted, (b) deferred, or (c) conditionally accepted. Applications for transfer to Boler must be received by December 1 for consideration for spring enrollment, and by May 1 for consideration for fall enrollment. Please note that students not formally declared in Boler may not take more than 30 credit hours of Boler courses. Students should allow a minimum of six semesters (which could include a summer semester) to complete the requirements of the Boler core and major.

## DISMISSAL FROM BOLER

Students whose Boler GPA falls below 2.0 for two consecutive semesters, or who are not successfully completing Boler Professional Development requirements, may be dismissed from the Boler School of Business. Such students may transfer to the College of Arts and Sciences if in good academic standing otherwise.

## 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 business 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 Economics <br> Management and Human Resources <br> Marketing <br> Supply Chain Management

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

Optional minors are available through the College of Arts and Sciences and the Boler School of Business (see pages 82, 89-90).

## General Requirements for Degrees

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

1. The completion of a minimum of 120 credit hours of acceptable college work.
2. The completion in residence of 18 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.
5. The attainment of an average grade of $\mathrm{C}(2.0)$ 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.
7. If required, the completion of an approved internship that consists of a minimum of 135 hours.
8. The completion of all degree requirements within ten years of the date on which college work was begun.
9. The filing of an application for the degree by the assigned day, for degrees to be awarded in May, in August, or in January.
10. The fulfillment of all financial obligations to John Carroll University.
11. The completion of the following business core courses (100 \& 200 level before 300 level):
a. Business Analysis using Microsoft Excel-BI 100, or demonstrated competency.
b. Accounting Principles-AC 201-202
c. Principles of Economics-EC 201-202
d. Business Analytics and Statistics-EC 210
e. Business Communications-EN 251
f. Data-Driven Decision Making-BI 200
g. Human Resource Management-MHR 352
h. Supply Chain and Operations Management-SCM 301
i. Business Finance-FN 312
j. Marketing Principles-MK 301
k. The legal environment/business law requirement differs by major. Please refer to a particular major in this Bulletin for the exact requirement.
12. Strategic Management or capstone class in Economics: MHR 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 499A and EC 499B instead of MHR 499.
13. Applied Calculus-MT 130.
14. Completion of the Boler Professional Development Program (see below).
15. The completion of the University's Integrative Core Curriculum (see Liberal Education at John Carroll University, page 67). In completing the Integrative Core Curriculum, Boler School of Business students must take PL 311 (Business Ethics) as one of the choices in the category of Jesuit Heritage.

## BOLER PROFESSIONAL DEVELOPMENT PROGRAM

Exclusively for Boler students, the Boler Professional Development Program (BPD) is a four-year, comprehensive program dedicated to preparing Boler students for their future careers. Beginning their first year, students will engage in a series of career events, workshops, and experiences to practice, polish, and perfect their professional skills. The BPD Program consists of 7 semesters of activities, the completion of which is a requirement for graduation with a Boler School of Business degree:

## BPD 102: Self Discovery, Awareness, \& Planning (spring first year)

- Understanding the principles of expectations management, online branding, and identifying unique leadership qualities.


## BPD 201: Build and Develop Professional Skills I (fall sophomore year)

- Learning the tools and skills essential for professional success; improving skills with communication etiquette, networking, resume writing, and finding an internship.


## BPD 202: Build and Develop Professional Skills II (spring sophomore year)

- Continue to develop the essential skills for interviewing, LinkedIn, resume writing, and professional conduct.


## BPD 301: Real World Professional Skills (fall junior year)

- Begin to put professional skills into practice; gain the professional experience of an executive mentor, dining etiquette, building a professional network, and behavior-based interviewing.


## BPD 302: Real World Professional Skills II (springjunior year)

- Experienced professionals share their stories of success, overcoming adversity, and general career advice; learn to better leverage professional abilities.


## BPD 401: Find Your Professional Edge I (fall senior year)

- Revisit cover letters and resumes; learn how to negotiate an offer and how to successfully handle criticism, feedback, and praise.


## BPD 402: Find Your Professional Edge II (spring senior year)

- Networking and LinkedIn after college; managing money; key advice for transitioning from college student to professional.


## BPD 490: Professional Experience (Prerequisite: permission of instructor)

- Prerequisites: BPD 201, 202. 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. Required for all EC, IBLC, MHR, and MK majors.


## MINORS IN THE BOLER SCHOOL OF BUSINESS

## Minor in Economics

The minor in economics is discussed in detail in the section of Economics on page 223.

## 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 the following courses:

BI 100 Business Analysis using Microsoft Excel ................. 1 cr.
AC 201-202 Accounting Principles........................................ 6 cr.
EC 201-202 Principles of Economics ...................................... 6 cr.
EC 210 or
MT 122 or MT 228
or MT 229 Business Analytics or Statistics............................ 3 cr.
MHR 352 Human Resource Management............................. 3 cr.
MK 301 Marketing Principles......................................... 3 cr.
Directed Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
Choose one of the following:
BI 200 Data-Driven Decision Making
SCM 301 Supply Chain and Operations Management
SCM 328 Supply Chain Logistics
Electives (2) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 cr.
Two upper-division courses from the same major in the Boler School, with the exception of MHR 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.
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 a GPA of at least 2.0.
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.

## Post-Baccalaureate Accountancy Sequences in the Boler School of Business

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 credit 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/.

Accountancy Sequence applicants should contact the assistant dean for graduate business programs at 216-397-1970. Official transcripts of all previous college work should be sent to the assistant dean's office in the Boler School.

## 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 Federal Taxes I 3 cr.
AC 341 Accounting Information Systems 3 cr .
AC 431 Auditing 3 cr.

## Electives Select at least two of the following:

AC 422 Federal Taxes II 3 cr.
AC 481 Advanced Financial Accounting 3 cr.
AC 484 Financial Accounting Theory 3 cr.

## Recommended Business Elective

MHR 463 Business Law I 3 cr.

## Five--ear Bachelor's/Master's Programs


#### Abstract

Five-year bachelor's/master's programs are offered in Business Administration, Education, English, Nonprofit Administration, and Theology and Religious Studies. These programs allow students to complete both 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 120 -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.


## Master's of Business Administration

The $5^{\text {th }}$-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 disciplinespecific expertise in a new area.

## 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, or Adolescent Young Adult (AYA). Credit hours and requirements vary by license. Middle Childhood and AYA students may need additional course work in their teaching fields. The program is an intensive, elevenmonth clinically-based program that begins in the summer and concludes at the end of the following spring semester.

## 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.

## 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.


## Interdisciplinary Minors


#### Abstract

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 credit hours of course work in which the student has attained at least a 2.0 (C) average. To qualify, students must complete all of 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, as well as 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 218 for information.

Entrepreneurship. See page 260 for information

Leadership Development. See page 334 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 capstone seminar, "The Catholic Experience," an interdisciplinary course that addresses major issues in contemporary Catholic life and thought as a way of integrating within the minor the material and perspectives studied in other courses. In fulfilling these requirements, a student must take a minimum of three courses at the 300400 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.

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 study of a modern European language, usually the language that students take to fulfill the University Core requirement in a foreign language. The MES language requirement may be met in one of three ways: 1) Students who begin at the 100 level must complete the courses up to and including 202 ( $9-12$ hours) to fulfill the MES language requirement. 2) Students who start at the 200 level must complete the courses up to and including 302 ( 9 - 12 hours) to satisfy the MES language requirement. 3) Students who are placed at the 300 level must complete two courses at that level ( 6 hours) to fulfill the MES language requirement; they are not required to take additional courses to fulfill the MES language 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 selections from the approved list of Modern European Studies courses 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. Co-Coordinators: Dr. Matthew Berg, Department of History; and 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 consists of three parts: prerequisite courses, core areas in public health, and a capstone internship.

The prerequisite courses total 9-10 credit hours: Biology: BL 112/112L or EPAS $205 / 205 \mathrm{~L}$ with a grade of B or better, or BL 156/BL 158. Statistics: a grade of C or better must be earned in DATA 122, DATA 228, DATA 229, EC 208, or PO 105.
Social and behavioral science: SC 101 or SC 245.
In addition to the prerequisite courses, students will fulfill 22-23 credit hours of requirements in the core areas of Population and Public Health, including one elective. Public health: SC 273 and PPH 273. Epidemiology: BL 240. Environmental studies: Choose one from BL 137, BL 222, or SC 380. 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 PO 304 or PO 337.
Global health: Choose one course not taken to fulfill other PPH requirements from BL 260 or SC 370. Elective course: Choose one course not taken for other PPH minor requirements from PPH 274, BL 260, BL 310/310L, BL 410, CO 455, EN 300, EPAS 200, HS 237, PL 316, PO 304, PO 337, PS 226, SC 275, SC 285, SC 315, SC 330, SC 343, SC 370, or SC 385.

To complete the minor, students are required to complete a 4 -credit-hour capstone internship and seminar in Public Health Practice, PPH 473. Admission to the minor is limited by the enrollment cap for this course.

Co-Coordinators: Dr. James Lissemore, Department of Biology; and Dr. Susan Long, Department of Sociology and Criminology.


# Centers, Instifutes, and Programs 

## CENTERS

## 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 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 issues and maintains 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 also provides opportunities for international students to integrate into campus life and meet other international and domestic students, faculty, and staff. Contact: The Center for Global Education at global@ jcu.edu, or visit the CGE website at www.jcu.edu/global, or call 216-397-4320.

## The Center for Service and Social Action

The Center for Service and Social Action connects students and faculty to engaging opportunities for learning through service, community-based research, and civic engagement. The center also connects the campus with the community through mutual partnerships that are significant, eye-opening, and transformative. These high-impact learning experiences help the University realize the Jesuit goal of developing well-educated men and women who understand the realities of a changing world as well as what it means to stand in solidarity with those living in poverty and on the margins.

Through these dynamic opportunities and encounters, learning is deepened, awareness is broadened, and career paths are discovered or confirmed. The center embodies the mission and commitment of John Carroll University in the formation of men and women who "excel in learning, leadership, and service," to build a more humane and just society.

Director: Sr. Katherine Feely, SND.

## The Center for Teaching and Learning

The Center for Teaching and Learning 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.

## 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, stipend-supported summer internship with an urban or rural organization that addresses the needs of society's most vulnerable members. Academic Director: Dr. Margaret Finucane, The Tim Russert Department of Communication and Theatre; 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.

The ISI certificate is an affiliate program of the Department of Theology and Religious Studies. It can be taken as a non-credit, non-degree certificate program or for degree credit in conjunction with the M.A. in Theology and Religious Studies. All ISI courses are conducted at the John Carroll University main campus.

ISI course work runs concurrently with the fall-spring academic calendar and is 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.

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, Associate Professor Emerita 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 94); 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, Department of History.

## 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 also are funded by the Ginn Institute.

## PROGRAMS

## Arrupe Scholars Program for Social Action

The Arrupe Scholars Program is a mission-based scholarship and learning opportunity tailored specifically towards creating leaders for social action. Rooted in the wisdom of our 450-year-old Jesuit heritage, this program aims to produce graduates who are both trained in the academic study of inequality and committed to using their knowledge and abilities for the promotion of justice. 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 grounded in his love for his faith and for God. As such, Jesuit institutions around the world subscribe to his precept of "men and women for others." The Arrupe Scholars program embodies John Carroll's highest efforts in this regard.

Arrupe Scholars develop leadership for social change through completion of academic courses as well as engagement in social justice advocacy. Arrupe Scholars receive a $\$ 5,000$ annual scholarship and are recognized by the University at commencement; in addition, their program participation is noted on their academic transcript. For more information, see the separate section on the program in this Bulletin and visit its website: http://sites.jcu.edu/arrupe/. Director: Dr. J. Malia McAndrew, Department of History.

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

Established in 1997, with the support of the Northern Ohio Italian-Americans (NOIA) and the Boler Challenge Grant, 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 offers a self-designed major and minor in the Department of Classical and Modern Languages and Cultures and comprises a rich interdisciplinary curriculum in language, culture, literature, film, history, art history, religious studies, and philosophy. A combination sequence of courses in Italian Studies leads from competence in basic Italian language skills to a thorough understanding of the language, as well as an interdisciplinary approach to Italian culture and literature. The program sponsors the Bishop Pilla Spring Break in Italy, the John Carroll University in Rome Study Abroad Program, and the Bishop Pilla Summer Institute in Italy. Directors: Dr. Santa Casciani and Dr. Luigi Ferri, Department of Classical and Modern Languages and Cultures.

## Program in Applied Ethics

The Program in Applied Ethics supports program development and related activities in the area of applied ethics. Among its goals are increasing awareness of, reflection on, and campus-wide conversations about contemporary ethical and social 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. Director: Dr. Pamela Mason, College of Arts and Sciences.

# Preparation for Graduate and Professional Study 

## GRADUATE STUDY AND COLLEGE TEACHING


#### Abstract

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 this website: http://sites.jcu.edu/graduatestudies/pages/future-students/apply/ requirements/.

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: pre-professional and professional. John Carroll cooperates with the students' pre-professional 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 three years of pre-professional education. Students are urged in most cases to pursue programs leading to a bachelor's degree.

## Engineering Programs

John Carroll University students interested in pursuing a career in engineering have a number of options. Students wishing to obtain a focused engineering degree in a particular field may participate in the Dual Degree 3-2 Program with Case Western Reserve University. The Case School of Engineering offers degrees in Aerospace Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Materials Science and Engineering, Mechanical Engineering, Polymer Science and Engineering, and Systems and Control Engineering. John Carroll University has an articulation agreement with Case Western Reserve University that ensures a smooth transition between the two schools. In this program, students attend JCU for three years and then transfer to CWRU for two years; they receive a bachelor's degree (either B.A. or 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 mathematics, physics, chemistry, computer science) and maintains an overall 3.0 GPA and a 3.0 GPA in science and mathematics courses. Students who are interested in this program should contact the Department of Chemistry or the Department of Physics as early as possible.

Another option is to complete a B.S. at John Carroll in Engineering Physics and then pursue further specialization by entering an engineering school for a master's degree in a particular field of engineering.

Students who are interested in either option may start taking engineering courses while at John Carroll through the Northeast Ohio Commission on Higher Education Cross-Registration Program.

## 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 with a major in either biology, cell and molecular biology, or biochemistry. Students are free to follow any degree program provided they complete the specific course prerequirements 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 (HPAC) is the University mechanism that 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 credit 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 considerable 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 on the Medical School Admission requirements (MSAR) website, revised annually by the association of American Medical Colleges. A bachelor's degree is almost invariable 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 155158; and MT 135 and MT 228. In order to be prepared for the MCAT, students 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.

## Graduate and Professional Study

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 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 director of Pre-Health Professions Studies.

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 typically 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, 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 of three years of undergraduate education is the rare 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.jcu.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 Stiles, Department of Political Science (estiles@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 a second major, minor, or concentration that complements the major field of study.

A broad background of knowledge, which is obtained through the University Core Curriculum, 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 credit 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 1) pass a written examination in accounting, auditing, and other related subjects; and 2) 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 209.)

John Carroll offers three graduate-level options for earning teacher licensure: the School-Based M.Ed. Program, the Professional Teacher/Initial Licensure 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 and results only in a teaching license.

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 CAEP (formerly 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 School Psychology and the Department of Counseling.

## 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 167). It prepares students for entrance into a major seminary program of priestly formation in the Roman Catholic Church.


# Graduate Studies at John Carroll 


#### Abstract

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, 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, clinical mental health counseling, education, English, humanities, mathematics, nonprofit administration, and theology and religious studies; Master of Science (M.S.) in accountancy, biology, and lab administration; 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 advanced studies. In addition to these degrees, certificate programs are also offered at the graduate level, including a Certificate of Nonprofit Management, Certificate of Advanced Studies in Theology and Religious Studies, Certificate in Pre-Medical Studies, Certificate in Spiritual Wellness and Counseling, and Certificate of Advanced Studies in Assessment, Research, and Measurement. The Department of Education and School Psychology has approved state endorsement programs for teachers holding valid teaching licenses in the following areas: Reading, Early Childhood Generalist, and Teacher Leader.

## Five-Year Programs

John Carroll offers five-year programs that provide students the opportunity to complete both the bachelor's and master's degree within five years. Programs are currently offered by the following departments: Business, Education, English, Nonprofit Administration, and Theology and Religious Studies. Descriptions of these programs may be found in this Bulletin (see page 440).

## 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 February 15 for assistantships to be granted the following academic year. Detailed information about specific positions and application materials are available online at http://sites.jcu.edu/graduatestudies/pages/futurestudents/assistantships/. Students may also contact department chairs or program coordinators regarding specific positions.


# Academic Policies and Procedures 

ENROLLMENT AND COURSE LOAD

## Orientation

All full-time first-year students 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 firstyear and transfer students are not permitted to register for courses prior to the orientation sessions.

## Academic Advisors

All students have an assigned faculty advisor with whom they should consult regularly about curriculum planning, course registration, and other academic decisions. Students should meet at least twice a semester with their faculty advisor to discuss academic planning and scheduling. Fall-term first-year students meet more frequently with their advisor as part of the Cohort Advising Program. Students who have been formally accepted into an academic major will be assigned an academic advisor in their program of study.

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 first-year 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. Students should be aware of possible aid implications when making changes in registration, and consult the Office of Student Enrollment and Financial Services as necessary.

Withdrawal from a course or change from credit to audit status may be made up to a date specified each semester by the Registrar's Office. Change of registration status will not be permitted during the last two weeks of class. First-year students should note the special provisions under"Withdrawal Regulations" (see page 115).

## Student Course Loads

The normal course load for full-time students is 15 to 18 credit hours per semester, but will vary with students' curriculum and scholarship record. Additional tuition is charged for a course load of more than 18 credit hours. Permission to carry excess credit hours (more than 18) requires, among other considerations, at least a 3.0 average in the previous semester and permission of the assistant dean of the College of Arts and Sciences or the Boler School of Business. The minimum course load for full-time students is 12 credit 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 credit hours in full-time programs) while their probation lasts.

Certain programs requiring more than 120 credit 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 Hour

The semester credit hour is the official unit of instruction. One semester credit hour is awarded for a minimum of one class hour of direct faculty instruction (the class hour is defined as 50 minutes) plus a minimum of two hours of out-of-class work each week delivered over a 15 -week term. In addition to the consecutive weekly format, courses may also meet in a variety of compressed formats of varying length within the beginning and ending dates of a given semester or summer term.

## 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 $\mathrm{P} / \mathrm{F}$ option for any course counted toward University Core requirements or in a major sequence or optional minor. Business majors may notuse the $\mathrm{P} / \mathrm{F}$ option for any of the business core courses. Students planning to take courses on a $\mathbf{P} / \mathbf{F}$ basis should discuss this action with their advisor.

Students wishing to take the P/F option or change from the $\mathrm{P} / \mathrm{F}$ 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. Once the student has completed the Pass/Fail Option form (available on the Registrar's webpage), and obtained approval from the assistant dean of the College of Arts and Sciences or the Boler School of Business, the student must submit the form for processing to Rodman Hall, Room 205/206.

Students selecting the $\mathrm{P} /$ 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.


#### Abstract

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" from the assistant dean of the College of Arts and Sciences or the Boler School of Business 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 Rodman Hall, Room 205/206, during the first two weeks of the semester. First-year students (those with fewer than 25 hours completed) must have the approval of the academic advisor and the appropriate assistant 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 coursechange week of the following semester and with permission from the appropriate assistant dean of the College of Arts and Sciences or the Boler School of Businessregister 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. Permissionto audit a course must be obtained from the director of the Honors Program and the assistant dean of the College of Arts and Sciences or the Boler School of Business. Students are expected to meet the normalattendance 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. In the second week of the semester faculty submit to the Registrar's Office a list of students who have not attended any class meetings. These students will be automatically withdrawn from those courses.

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 weekof a semester the instructor will provide, as part of the class syllabus, a written statement of the attendance policy for that class. The statement will explain 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. Whenever possible, requests for excused absences should be made by the student in advance; moreover, they should be infrequent as well as reasonable in terms of the grounds, necessity and duration. Grounds could include illness, accident, serious emergency, or the observance of a religious holiday that prevents the student from attending class.

## 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 course activities and their extracurricular events. The student should obtain, from the coordinator of the activity, an official letter of participation and present it, along with a schedule of events for the semester, to the faculty instructor, 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 lastminute 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 the 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 found 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 assistant dean of the College of Arts and Sciences or the Boler School of Business 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 $\mathrm{s} / \mathrm{he}$ 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 on 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.

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 $2^{\text {nd }}$ and $12^{\text {th }}$ 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 $12^{\text {th }}$ 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 assistant dean in the College of Arts and Sciences or the Boler School of Business.

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 first-year assistant dean of the College of Arts and Sciences beforedropping. A first-year student must use a signed APR form to drop a course.

When a student decides to discontinue enrollment at John Carroll University, a formal notice must be given to Student Enrollment and Financial Services. The student may choose to initiate a withdrawal from all courses with no intent to return ("Permanent Withdrawal") or withdrawal with the intent to return ("Leave of Absence"). A withdrawal initiated by a student can be superseded by appropriate University action in the event of disciplinary action, academic dismissal or suspension. A Leave of Absence will not delay program expiration dates.

Please visit the following link for additional information on the Permanent Withdrawal and Leave of Absence Policy and for the appropriate forms: http://sites. jcu.edu/registrar/withdrawal/.

## 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 a scholastic average of $2.00(32 \div 16)$; students who earn 51.1 quality points while attempting 16 hours have an average of 3.19 (51.1 $\div 16$ ). 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 $\div 67$ ). 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. |
| B | Superior work. 3 quality points per credit hour. |
| B- | 2.7 quality points per credit hour. |
| C+ | 2.3 quality points per credit hour. |
| C | 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, <br> 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. |
|  | Incomplete. Work incomplete. Work is to be completed within one month fol- <br> lowing the last normal examination date of the semester in which the grade <br> is incurred or the grade of I converts to F. An extension may be granted by the <br> appropriate dean for very serious reasons, usually medical. |
| X | Absent from final examination. Courses whose final exams are not complet- <br> ed within one month following the last scheduled examinations will convert <br> to a grade of F. |
| CR | Credit granted for master's thesis upon approval, student teaching, and other <br> designated courses. Also indicates achievement of a grade of C or better in <br> 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 FIRST-YEAR students upon admission with proper high school credentials until the completion of 24
semester hours; asSOPHOMORES 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, includingplagiarism, 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 academicdishonesty where the student chooses to withdraw from a course rather thanreceive 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 repeatdishonesty, 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 of the College of Arts and Sciences or the Boler School of Business 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 writtenrecord 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 informationand 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 howacademic 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, whowill then schedule a meeting with the student and the instructor. For appeals unresolved at the end of the semester the student will select between receivingthe 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 ofthe 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 selectedwill 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 thelist.
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 followedconsistently, 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 awayfrom the University during the period of the grade appeal, the student mayproceed 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 bemade in writing to the instructor and a copy sent to the department chair, whowill 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 ofthe 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 FacultyCouncil to provide a list of the names of nine, randomly selected, faculty members. From this list, the associate dean, the instructor, and the studenteach will choose three to consider the matter. Faculty unanimously selected will sit on the appeals committee; if agreement on the three cannot bereached, the associate dean will fill any remaining spots on the committeefrom 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 andother 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 decisionafter 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, 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 first-year students, transfer students, and those on academic probation, for all courses in which they are enrolled, but only grades of C- or lower are reported for other students at midterm. None of these grades become part of the permanent record.

Students who wish their academic report released should make the request online at http://sites.jcu.edu/registrar/pages/services-and-forms/transcripts/ or through their BannerWeb account 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 academic advisor and the chair of the department in which the course was taught, requesting permission to repeat the course.

## Graduation Requirements

Students must apply for graduation through the online graduation application available through BannerWeb during the period announced in the University calendar.

Graduation requirements include general requirements, all Core requirements, and all requirements for the major. Successful completion of at least 120 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 department chair is required by some interdisciplinary programs and should be returned to the Registrar's Office.

Student academic records are sealed at the time the degree is conferred. After the degree conferral date, changes-with the exception of errors or omissions-cannot be made to the student record.

## 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. 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, including the filing of online academic petitions.
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.

## 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 dropsbelow
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 assistant 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 |
| :--- | :--- | :--- | :--- | :--- |
| $13-24$ | earned hours | 1.80 | after 48 earned hours | 2.90 |

Probation is imposed by the University 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 followingrestrictions:

1. 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 semesterhours.
2. 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. In order to practice while on probation, a student may initiate a "Permission to Practice Procedure," which involves having discussions with, and obtaining signatures from, the coach, Director of Athletics, Faculty Athletics Representative, and Associate Dean for Academic Advising (or designee) and which must be processed by the designee in the Office of the Registrar. If the student chooses to continue to practice with the team, a season of participation will be charged to their eligibility. Travel is not restricted if outside the FALL/SPRING academic calendar year and approval by coach/athletic administrator is required.
3. They may not pledge a fraternity or sorority, or hold any elective or appointive office on campus.

## Privilege

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. Students who have received below a C- in courses required in their intended program of study are eligible to petition for privilege. A successful petitionfor privilege allows a student to remove the deficient grade or grades from their cumulative GPA. A student who makes this choice may not continue in the academic major for which they requested privilege.

A petition for Privilege will be reviewed by the chair of the relevant academic department and the Office of Academic Advising and must be submitted before the student earns 40 credit hours. Courses for which the privilege has been granted remain listed on the student's permanent record (transcript) with the designation FP.

## Dismissal

Students are subject to dismissal for academic deficiencies by the University 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 applyfor reinstatement. (For conditions of reinstatement, see page 23.)

## TRANSFER OF CREDIT

## Transcripts

Students who wish transcripts of records in order to transfer to another school or for other purposes should follow the procedures outlined on page 59.

Students who wish to transfer credits to John Carroll must submit an official transcript in one of the following ways:

1. Sent directly via U.S. mail from another institution's record/registrar office to John Carroll's Office of the Registrar, or the appropriate admissions offices of the University, as part of the application process.
2. Delivered electronically via a secured third party method that has been verified by the sending institution.

All other transcripts are considered unofficial and will not be accepted or processed.

## 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. The following are situations for which assistant 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. The Cross-Registration form and guidelines are posted on the Office of the Registrar's webpage.

## 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. They 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 transientpetitions online to gain approval for course work taken abroad, which is approved by the chair of the relevant department. Students must secureapproval 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 Vatican City, and in London, England. JohnCarroll currently has studyabroad and exchange agreements with universities inmany 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 applytheir 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 International Business with Language and Culture program in the Boler School of Business 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 maybe completed and transferred to John Carroll. Interested students should contact the Center for Global Education.

## 4. Courses at other accreditedinstitutions

John Carroll students who wish to take courses at another institution will ordinarily first consult with their advisors. Then they must submit an online academic petition for approval before enrolling elsewhere. Course descriptions must be provided. For 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.



Dr. Jeffrey Johansen, Professor of Biology
Recipient of the Distinguished Faculty Award for 2016

## Department and Course Codes

The department or program and course subject codes for all units of the University are arranged in the single alphabetical list that appears below. The subject 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, program, 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 the 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, Program, and Course Subject Codes

The table below provides a list of course subjects and their codes. Affiliated program or department codes are listed in parentheses if different than the course subject codes.

| Accountancy | AC | Honors Program | HP |
| :---: | :---: | :---: | :---: |
| Art History and Humanities | AH | International Business with Language and Culture | IB |
| Arts and Sciences | AR | International Cultures (CMLC)* | IC |
| Biology | BL | Italian Language (CMLC)* | IT |
| Boler Professional Development | BPD | Japanese Language (CMLC)* | JP |
| Business Information Systems (MNMK)* | BI | Latin Language (CMLC)* | LT |
| Career Education | CE | Leadership | LP |
| Chemistry | CH | Management and Human Resources (MNMK)* | MHR |
| Chinese Language (CMLC)* | CN | Marketing (MNMK)* | MK |
| Classics (CMLC)* | CL | Mathematics (MT/CS) * | MT |
| Communication and Theatre | COMM | Military Science | MS |
| Computer Science (MT/CS)* | CS | Modern Languages (CMLC)* | ML |
| Data Science (MT/CS)* | DATA | Peace, Justice, and Human Rights | PJHR |
| East Asian Studies | EA | Philosophy | PL |
| Economics (EC/FN)* | EC | Physical Education (ESSS)* | PE |
| Education and School Psychology | ED | Physics | PH |
| Engineering Physics (PH)* | EP | Political Science | PO |
| English | EN | Population and Public Health | PPH |
| Entrepreneurship | ER | Pre-Health Professions | PHP |
| Exercise Science (ESSS)* | EPA | Psychology | PS |
| Finance (EC/FN)* | FN | Russian Language (CMLC)* | RS |
| Fine Arts | FA | Slovak Language (CMLC)* | SL |
| French and Francophone Studies (CMLC)* | FR | Sociology and Criminology | SC |
| Gender, Sexuality and Women's Studies | GEND | Spanish and Hispanic Studies (CMLC)* | SP |
| German Language (CMLC)* | GR | Sports Studies (ESSS)* | SPS |
| Greek Language (CMLC)* | GK | Supply Chain Management (MNMK)* | SCM |

*Affiliated program or department code list:
CMLC: Department of Classical and Modern Languages and Cultures
EC/FN: Department of Economics and Finance
ESSS: Department of Exercise Science and Sports Studies
PH: Department of Physics
MNMK: Department of Management, Marketing and Supply Chain
MT/CS: Department of Mathematics and Computer Science


## Department Chairs

## ACCOUNTANCY

Albert Nagy, Ph.D.

## ART HISTORY AND HUMANITIES

Gerald B. Guest, Ph.D.

## BIOLOGY

Rebecca Drenovsky, Ph.D.

CHEMISTRY
Michael P. Setter, Ph.D.

CLASSICAL AND MODERN
LANGUAGES AND CULTURES
Gwen Compton-Engle, Ph.D.
THE TIM RUSSERT DEPARTMENT
OF COMMUNICATION AND
THEATRE
Margaret O. Finucane, Ph.D.

## COUNSELING

Cecile Brennan, Ph.D.
ECONOMICS AND FINANCE
Andrew Welki, Ph.D.

## EDUCATION AND SCHOOL

PSYCHOLOGY
Catherine A. Rosemary, Ph.D.

## ENGLISH

Debra Rosenthal, Ph.D.

## EXERCISE SCIENCE AND <br> SPORTS STUDIES <br> Kathleen Manning, Ph.D.

## HISTORY

Matthew Berg, Ph.D.
MANAGEMENT, MARKETING, AND SUPPLY CHAIN

Charles Watts, D.B.A.

MATHEMATICS AND
COMPUTER SCIENCE
Paul L. Shick, Ph.D.

## MILITARY SCIENCE

Matthew Johnson (LTC)

## PHILOSOPHY

Tamba Nlandu, Ph.D.
PHYSICS
Jeffrey Dyck, Ph.D.
POLITICAL SCIENCE
Mindy Peden, Ph.D.

## PSYCHOLOGY

Sheri D. Young, Ph.D.

## SOCIOLOGY AND

CRIMINOLOGY
Richard Clark, Ph.D.

## THEOLOGY AND RELIGIOUS STUDIES <br> Sheila E. McGinn, Ph.D.

# Accountancy (AC) 

Professors: R. Bloom, G. P. Weinstein, A. L. Nagy (Chair), K. Schuele; Associate Professor: M. Webinger; Assistant Professors: M. Sheldon, J. Garcia, T. Petzel; 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 and characteristics 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 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 each course before being accepted as majors. Furthermore, it is strongly recommended that majors earn at least a C in EC 201-202 and EC 210.

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 credit 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.

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.

## Program Learning Goals in Accountancy.

Students will:

1. Be prepared for a career in professional accounting and licensure as Certified Public Accountants.
2. Have a working knowledge of the functional areas in accounting.
3. Develop an understanding of professional codes of conduct in accounting (e.g., public and managerial accounting).
4. Develop an understanding of various aspects of global business.
5. Develop an understanding of various aspects of information technology.
6. Solve accounting problems using appropriate analytical techniques.

## Requirements

Major in Accountancy: 68 credit hours as described below.
Business Core: 41 credit hours, including MHR 463.
Major Courses: 27 credit hours (a minimum of 15 hours in residence), including AC 303, 304, 305, 312, 321, 341, 431, and two electives.

Elective courses in accountancy (AC 405, 422, 461, 480, 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.

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.
221. FUNDAMENTALS OF ACCOUNTING 3 cr. Provides an understanding of the purpose and use of accounting information through the study of generally accepted accounting principles and concepts as applied to financial statements. Includes measurement of assets, debt, and equities; determination of income; preparation of statement of cash flows. Offered occasionally as an online course. Does not satisfy the degree requirement for the major.

303-304-305. INTERMEDIATE ACCOUNTING 3 cr. each. Prerequisite: for AC 303, minimum grade of C in AC 201 and 202; for AC 304, minimum grade of C in AC 303; for AC 305, minimum grade of C in AC 304. 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 303-304-305 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 202. 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 department 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, review of 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. INTERNATIONAL ACCOUNTING 3 cr. Prerequisite: minimum grade of C in AC 304. Focuses on cultural differences that underlie specific patterns of accounting standards and practices in different countries. Emphasis on understanding financial reports of foreign-based companies. Additional emphasis on contrasting selected IFRS and FASB standards.
475. FRAUD EXAMINATION 3 cr. Prerequisite: minimum grade of C in AC 304. Emphasis on corporate fraud and the methodology used to discover and prevent its occurrence. Corporate fraud includes both fraudulent financial reporting and asset theft. The methodology used to investigate fraud includes analytical procedures and interviewing techniques. Case studies and projects provide practical application.

## 480. INFORMATION SYSTEMS CONTROL \& ASSURANCE 3 cr.

Prerequisite: AC 341. Focus on information technology general controls in accounting systems. Additional emphasis on the use of data analytics in fraud examination and internal and external audit services.
483. SEMINAR IN CONTROLLERSHIP 3 cr. Prerequisite: 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 U.S. GAAP and IFRS.

## 489. FINANCIAL ACCOUNTING FOR SPECIAL ENTITIES 3 cr.

Prerequisite: minimum grade of C in AC 304 or equivalent. Coverage of the consolidation process; financial accounting and reporting by partnerships, state and local governmental agencies, and non-for-profit organizations. Includes fund accounting. Recommended for students wishing to pursue CPA licensure.
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 department member willing to act as advisor. The student selects an aspect of accounting, establishes goals, and develops a study plan that must be approved by the chair and filed with the dean's office. Consult the chair for established guidelines established for such study.


## Arrupe Scholars Program


#### Abstract

The Arrupe Scholars Program is a mission-based scholarship and learning opportunity tailored to creating leaders for social action. Rooted in the wisdom of our 450-year-old Jesuit heritage, this program aims to produce graduates who are both trained in the academic study of inequality and committed to using their knowledge and abilities for the promotion of justice. In this way, it represents the University's fundamental commitment to graduating men and women "with and for others."


## Academic Requirements

Arrupe Scholars take a series of courses together over their four years at John Carroll. These courses provide students with the knowledge and skills needed to become effective advocates for positive social change in our world. Courses are taken in sequential order, with the other members of the student's class cohort. The Arrupe curriculum culminates in a capstone project that requires students to develop and implement an advocacy project of their choice.

In total, Arrupe students take 17 academic credits with the members of their class cohort. During the freshman and sophomore years, 9 of the credits that Arrupe students take together count towards their University Core requirements. The 9 credits that students take during their sophomore, junior, and senior years can count towards a minor in Peace, Justice and Human Rights (should the student be interested in that course plan; a PJHR minor is not required). Other students may wish to petition for these courses to count towards another major or minor at John Carroll, such as Population and Public Health or Entrepreneurship. This option requires the student to meet the expectations of both academic units. Interested students should plan this course of action in advance of the junior year with their academic advisor and department chair, as well as the director of the Arrupe Scholars Program.

Students whose schedules are subject to considerable outside restrictions should also consult with the director of the Arrupe Scholars Program. Individual student needs may be accommodated through an independent study course or through a limited number of course substitutions. These options will not be made available for trivial or avoidable reasons.

## Co-Curricular Requirements

In addition to taking academic credits with the members of their class cohort, Arrupe students participate in a robust co-curriculum. This series of annual events brings students from all class cohorts together to work as one larger student body. The purpose of the program's co-curriculum is to give students a variety of opportunities to develop strong pre-professional skills over the course of their
time at John Carroll. The Arrupe Scholars' co-curriculum focuses on communitybased engagement initiatives and thus exemplifies the University's fundamental commitment to graduating men and women "with and for others."

To facilitate our annual calendar of events, every student is required to sit on at least one of the program's many committees. Participation in committee work requires students to plan, implement, and develop one major event or program initiative. Committees are student-run and headed by a student chair. Together the chairs comprise the Arrupe Program's student leadership team.

## Program Learning Goals in the Arrupe Scholars Program.

Students will:

1. Develop their intellectual curiosity.
2. Be reflective learners.
3. Demonstrate a commitment to social action grounded in sustained engagement with people facing injustice.
4. Apply their knowledge and abilities to advocate for positive social change.

## Required Courses

AR 150A Social Action Orientation 1 cr. (Fall, Freshman Year)
AR 150B Social Action Seminar 1 cr. (Spring, Freshman Year)
EN 125 Written Expression with class cohort 3 cr. (Fall, Freshman Year)
CO 125 Oral Communication with class cohort 3 cr. (Spring, Freshman Year)
Selected CORE course rotated annually. Introduction to Social Justice 3 cr. (Fall, Sophomore Year).
NOTE: Students will be informed of the course number during their Freshman year. This class with either be an ISJ, TRS, or PL Course that counts for core credit
PJHR 350 Social Justice Research Course 3 cr. (Fall, Junior Year)
PJHR 450 Capstone Advocacy Project 3 cr. (Fall, Senior Year)

# Art History and Humanities (AH) 

Professors: L. A. Koch, L. S. Curtis, G. B. Guest; Associate 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 also are 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 World Art (AH 201) is recommended as preparation for all courses offered by the department.

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 businessareas 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. Course selection should be made in consultation with the department chair or a designated advisor.

## Program Learning Goals in Art History.

Students will:

1. Recognize and understand major artists and monuments of world art, and be able to identify the characteristics and distinguishing features of works of art and architecture in their historical and cultural settings. They will learn to make comparisons across cultures and time periods, leading to an understanding of art and culture within a global context.
2. Demonstrate a knowledge of vocabulary specific to the visual arts and develop a proficiency in visual literacy that will prepare them for graduate study and/or careers in the visual arts, architecture, the media, and related fields.
3. Engage with the curatorial and institutional dimensions of art collections and exhibitions by studying at local cultural institutions, including the Cleveland Museum of Art and the Museum of Contemporary Art.
4. Be able to locate, interpret, and analyze primary and secondary sources relevant to solving research problems in the visual arts.
5. Recognize, understand, and apply critical, theoretical, and methodological approaches to the history of representation understood within broader sociocultural and interdisciplinary perspectives.


#### Abstract

Major and Minor Requirements Major in Art History: 36 credit hours, including the following courses: Introduction to World Art (AH 201) 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); one course in either Northern Renaissance (AH 301) or Baroque (AH 304) and the Capstone Course (AH 497). Students must also complete at least two credit hours of studio art (AH 238 and 239, or AH 240 or 242) to complete the Art History major. Any subsequent studio classes will not be counted towards the required 36 hours. Students may count Art History courses from the EGC and/or linked section of the Integrated Core as elective courses within the major. Students must create a capstone portfolio to complete the major in Art History.

Minor in Art History: 18 credit hours, including AH 201. Students may choose courses that provide a general overview of the field or focus on an area of special interest. Note: Art History minors pursuing the departmental major in Humanities may count all Art History courses taken toward the Art History minor. Students may count Art History courses from the EGC and/or linked section of the Integrated Core as elective courses within the minor.

The Humanities Major and Minor are described on page 314.


201. INTRODUCTION TO WORLD ART 3 cr. Introduction to world art focusing on major works and themes from prehistory to the modern era. Painting, sculpture, and architecture of Europe, Asia, Africa, and the Americas will be considered in relation to political, religious, and intellectual contexts. Recommended as preparation for all other art history courses as it provides a firm foundation for further study.
202. 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, Daoism, Confucianism, and Shintoism) from ancient times to the modern world. No previous knowledge of Asian art or culture is assumed.

## 238. INTRODUCTION TO CREATION IN THE VISUAL ARTS: 2-D DESIGN

1 cr . One of two basic foundation courses for students exploring creation in the visual arts. 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. Students will learn by creating with artistic media in the studio and will participate in oral critiques of each other's works.


#### Abstract

239. INTRODUCTION TO CREATION IN THE VISUAL ARTS: COLOR THEORY AND PRACTICE 1 cr . One of two basic foundation courses for students exploring creation in the visual arts. Principles of color theory and practice, including ideas about hue, color contrast, and saturation; will focus on interaction and relativity of color as tools for creating art works. Students will learn by creating with artistic media in the studio and will participate in oral critiques of each other's works.


240. DRAWING I 3 cr. Introduction to drawing media and techniques. Studio practice.
241. PAINTING I 3 cr. Prerequisite: AH 238 or 239 (both are recommended). Introduction to materials, techniques, and styles of painting. Studio practice.
242. INTRODUCTION TO GRAPHIC DESIGN 3 cr. Prerequisites: AH 238 and AH 239 or permission of department chair. 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.
243. ART STUDIO 3 cr. Prerequisites: AH 238 and AH 239 or permission of department chair. Intermediate-level study of the materials, techniques, and styles of drawing or painting. Studio practice.
244. 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.
245. PROBLEMS IN STUDIO ART 1-3 cr. Prerequisite: AH 250 or permission of department chair. Aspects of studio art, e.g., drawing, painting, and/or sculpture, which change by semester.
246. 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.
247. 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.
248. 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.
249. 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.
250. 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.
251. HISTORY OF MODERN ART 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.
252. 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.
253. 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.
254. 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.
255. 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.
256. 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.
257. 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.
258. 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.
259. 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.
260. 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.
261. 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.
262. 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.
263. ART AND WOMEN IN THE MIDDLE AGES 3 cr . Consideration of the importance of women, both real and imagined, for understanding Medieval art. Topics include are 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.
264. 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.
265. THE AGE OF MICHELANGELO 3 cr . Italian art and culture during a period dominated by the genius of Michelangelo ( $1490 \mathrm{~s}-1560 \mathrm{~s}$ ). 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.

[^2]435. MATISSE, PICASSO, AND DUCHAMP 3 cr. Study of three 20thcentury 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.
497. CAPSTONE COURSE 1 cr. Required of all students majoring in Art History or Humanities and taken during the Senior year.
498. INDEPENDENT STUDY 1-3 cr. Prerequisites: permission 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)

These courses are designed to improve basic skills and provide knowledge and direction essential to success in college and later life.

Students may apply a maximum of four 1-credit AR 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.

## 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.

101B. ADVISING COHORT: BOLER SCHOOL OF BUSINESS 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. For students interested in programs in international business, accountancy, economics and finance, human resources, business logistics, management, and marketing. Graded Satisfactory/ Unsatisfactory.

## 101E. ADVISING COHORT: EDUCATION AND SCHOOL PSYCHOLOGY 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. For students interested in pursuing licensure in Early and Middle Childhood Education. Graded Satisfactory/Unsatisfactory.

## 101G. ADVISING COHORT: EXPLORATORY/GENERAL STUDIES 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. For students interested in exploring many areas of the curriculum before choosing one or more subjects to study in depth. Graded Satisfactory/Unsatisfactory.

## 101H. ADVISING COHORT: HUMANITIES AND SOCIAL SCIENCES 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. For students interested in programs in art history, history, communication, languages and literature, philosophy and religious studies, political science, or sociology. Graded Satisfactory/Unsatisfactory.

101S. ADVISING COHORT: STEM AND ALLIED HEALTH 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. For students interested in programs in science and engineering, computer science, mathematics, and psychology. 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.
125. ENTERING RESEARCH. 1 cr. Introduces students to the types of questions scientists ask and the approaches they take to answer them. Also addresses topics relevant to scientific disciplines, such as ethical conduct and use of appropriate sources. In addition, students will be introduced to various faculty research areas.
136. SOFT LANDINGS TRANSITION. 1 cr. Intended for first-semester international students, this discussion-based class focuses on transition to life in the U.S. and to John Carroll University.
144. WE THE PEOPLE FIRST-YEAR SERVICE LEARNING PRACTICUM
$\mathbf{0 - 1}$ cr. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.
145. YOUTH FOR JUSTICE FIRST-YEAR SERVICE LEARNING

PRACTICUM 0-1 cr. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.

## 146. PROJECT CITIZENFIRST-YEAR SERVICE LEARNING PRACTICUM

$\mathbf{0 - 1} \mathbf{c r}$. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. 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 firstyear status. Development of intellectual skills that foster social action leadership.
156. VETERAN SCHOLAR: THE IGNATIAN LEGACY 1 cr . Introduction to academic success resources and transitioning to the University environment specifically for student veterans. Special focus on strategic study skills, translating military skills, and choosing a major/career focus.
160. IMMERSION: CAMPUS MINISTRY 1 cr. Introduction to the social, political, economic, cultural, and religious issues affecting the different locations to which students travel for immersion experiences. Students also will learn how to approach new cultures, explore their own spirituality, and be open to letting personal stories move them. Three post-immersion meetings facilitate reflection and discussion about the current and future effects of the experience. May be repeated for up to 3 credits.
161. IMMERSION: HEALTH CARE 1 cr. Intended for students going on May immersions through Campus Ministry. Examines the problem of health care access and situates it within the political and religious (particularly social justice and Ignatian) understandings of the concept. Focuses on Honduras, Guatemala, Ecuador or Appalachia, depending on the student's destination.
171. INTERDISCIPLINARY SCIENCE 3 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 School Psychology.

171L. INTERDISCIPLINARY SCIENCE LAB 0 cr. Corequisite: AR 171.
Laboratory experiments illustrating concepts and procedures developed in AR 171.
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 126.
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 program. Pass/Fail. May be repeated once.

## 245. YOUTH FOR JUSTICE SOPHOMORE SERVICE LEARNING

PRACTICUM 0-1 cr. Prerequisite: sophomore standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.

## 246. PROJECT CITIZENSOPHOMORE SERVICE LEARNING

PRACTICUM 0-1 cr. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.
274. PEER HEALTH ADVOCATE SEMINAR 2 cr. Students who successfully applied to be a Peer Health Advocate and are selected through an interview process are invited to register for AR 274 for the fall semester. Students will utilize the health information presented in class to present peer-to-peer health promotion and wellness programs and demonstrate proficiency in planning, implementing, and evaluating peer health promotion and wellness programs.
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.
344. WE THE PEOPLE JUNIOR SERVICE LEARNING PRACTICUM 0-1cr. Prerequisite: junior standing. Participation in and preparation for the We the People service learning program. Pass/Fail. May be repeated once.

## 345. YOUTH FOR JUSTICE JUNIOR SERVICE LEARNING PRACTICUM

0-1 cr. Prerequisite: sophomore standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.

## 346. PROJECT CITIZEN JUNIOR SERVICE LEARNING PRACTICUM 0-1

cr. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.

## 350. ARRUPE SCHOLARS: SOCIAL JUSTICE RESEARCH 3 cr.

Prerequisites: admission to the Arrupe Scholars program and third-year status. Develop a reading list, demonstrate understanding of a specific social justice issue, and write a substantial research paper on the topic that will be the focus of the senior advocacy project.
360. LONDON STUDY ABROAD EXPERIENCE 1 cr. Online seminar for students in the London Liberal Arts program. Students engage in preparatory, experiential, and reflective learning exercises to explore cross-cultural learning and adjustment; examine social, political, and cultural similarities and differences; and take advantage of opportunities for the development of intercultural competence. The course is divided 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.
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 program. Pass/Fail. May be repeated once.

## 445. YOUTH FOR JUSTICE SENIOR SERVICE LEARNING PRACTICUM

0-1 cr. Prerequisite: sophomore standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.

## 446. PROJECT CITIZENSENIOR SERVICE LEARNING PRACTICUM 0-1

 cr. Prerequisite: first-year standing. Participation in and preparation for the We the People service-learning program. Pass/Fail. May be repeated once.450. ARRUPE SCHOLARS: ADVOCACY \& ACTION 3 cr. Prerequisites: admission to Arrupe Scholars program and senior status. Draws its focus from students' academic and co-curricular experiences. The goal is to "move the ball forward" in some way on the social justice issue in which they have gained expertise in the classroom.


## Biology

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

## 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, faculty emphasize the importance of evolution in biological phenomena, the role of 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 study 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. Early acceptance to the Biology, Cell and Molecular Biology, and Environmental Science majors will be considered if a student has earned a GPA of 3.0 in BL 155-158.

## Grade Policy for students in all biology majors:

1. A grade of C- or higher must be earned in courses required for each major or minor. A grade lower than C- requires that the course be repeated. In the case of an elective course for a major or minor 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 and minor courses, whether they have declared or not yet declared a biology major or minor. Courses in which a grade lower than a 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 or minor.
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.

## Program Learning Goals in Biology.

Students will:

1. Demonstrate a broad knowledge of biology and develop competency in specific areas of interest.
A. Understand the basic chemical principles, cell structure and organization, and metabolism of living organisms.
B. Understand plant and animal anatomy and physiology, with an emphasis on form and function.
C. Understand the diversity of organisms, systematic biology and phylogeny, and biological interactions over geological time.
D. Understand the principles of molecular, transmission, quantitative, evolutionary, and population genetics.
E. Understand the theory of evolution by natural selection.
2. Use an empirical approach to evaluate biological phenomena from primary literature.
3. Communicate biological knowledge effectively.

## Program Learning Goals in Environmental Science.

Students will:

1. Demonstrate a broad knowledge of environmental science and develop competency in biology, chemistry, and earth science.
A. Understand the basic chemical principles, cell structure and organization, and metabolism of living organisms.
B. Understand plant and animal anatomy and physiology, with an emphasis on form and function.
C. Understand the diversity of organisms, systemic biology and phylogeny, and biological interactions over geological time.
D. Understand the role of evolution in generating the diversity of form and function seen in life on Earth.
E. Understand the role of the environment in determining the outcome of biological interactions.
F. Identify the consequences of environmental changes arising from human activities.
2. Use critical thinking to evaluate and interpret biological and environmental phenomena.
A. Critically assess and accurately interpret scientific data presented in visual or tabular form.
B. Identify the scientific underpinnings of current environmentally-themed news.
3. Collect and analyze scientific data and communicate its importance through effective oral and written presentation.
A. Demonstrate competence in conducting original research.
B. Present research results orally and in writing.

## Program Learning Goals in Cell and Molecular Biology.

Students will:

1. Demonstrate a broad knowledge of biology and develop competency in specific areas of interest.
A. Understand the basic chemical principles, cell structure and organization, and metabolism of living organisms.
B. Understand plant and animal anatomy and physiology, with an emphasis on form and function.
C. Understand the principles of molecular, transmission, quantitative, evolutionary, and population genetics.
D. Understand cell signaling, regulation of protein function, eukaryotic cell cycle control, and cancer.
E. Understand gene and genome analysis, genome organization, transposable elements, chromosome structure, replication, and expression of genetic information in eukaryotes.
2. Use an empirical approach to evaluate biological phenomena.
3. Analyze biological data and communicate its importance through effective oral and written presentation.

## 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 295, 398 and BL 399 combined will be accepted for any of the biology majors. To receive a Bachelor of Science in biology, transfer students must complete a minimum of 17 credit hours in the Department of Biology at John Carroll University. To receive a minor in biology, students must complete a minimum of 13 credit hours in the Department of Biology at John Carroll University.
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 25-27 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 whereas PS 326 and PS 426 will be accepted as three BL
credits. None of these courses count as the 400 -level biology requirement. Students should refer to the registration website to identify appropriate courses to complete the Core within the major (i.e., additional writing (AW), oral presentation (OP), and capstone courses).

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 $222,331,370,406,417,419,423,424$, 426, 435, 440, 447, or 454.

Required Support Courses: CH 141-144 (or 151H, 153), CH 221-224, MT 135 (or MT 133134), DATA 228.

Minor in Biology: 21 credit hours of biology courses, including BL 155-160 and three 200-400 level courses. Students may count one of the following courses/course sequences for Biology minor credit: CH 431, CH 435-436, PS 326, or PS 426. CH 431 and CH 435-436 will be accepted as four BL credits whereas PS 326 and PS 426 will be accepted as three BL credits.

Strongly Recommended: CH 141-144, 221-224
Major in Cell and Molecular Biology: 34-37 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. Students should refer to the registration website to identify appropriate courses to complete the core within the major (i.e., additional writing (AW) and oral presentation (OP), and capstone courses.

Required Courses: BL 155, 156, 157, 158, 213, 459, 465, 470; CH 431 or 435, 437; plus three courses from: BL 159 and 160, 215, 295 (3 cr.), 301, 302, 310, 399 (3 cr.), 410, 471, 475, CH 436.

Required Support Courses: CH 141-144 (or 151H, 153), CH 221-224; MT 135, DATA 228, PH 125-126.

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. Students should refer to the registration website to identify appropriate courses to complete the core within the major (i.e., additional writing (AW) and oral presentation (OP), and capstone courses.

Required Courses: BL 155, 156, 157, 158, 159, 160, 222, 224 or 435, 331, 424 or 447, 444; plus two courses from BL 224, 295 ( 3 cr .), 399 ( 3 cr .), 406, 417, 419, 423, 424, 426, 435, 447, 454.

Required Support Courses: CH 141-144 (or 151H, 153); MT 135, DATA 228; PH 115, 115L, 206; plus one course from PO 361, 363, SC 292, 380.

Strongly Recommended: CH 221-224.

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 25-32.

## Pre-Health Professions

Many students with healthcare career goals such as medical school or dental school choose Biology or Cell and Molecular Biology as their undergraduate major. Students should check with their intended post-graduation programs to ensure that they are completing all necessary prerequisite courses, as these majors may not include all needed course work. The Office of Pre-Health Professions can help students identify and plan for additional course work.

John Carroll University has early acceptance programs and linkages with a variety of healthcare professional schools, including medical and dental schools. For additional information, please see the Pre-Health Professions section of this Bulletin or visit 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 first 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 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 and the following prerequisite courses: CH 141-144, CH 221-224, MT 135, DATA 228, BL 155-160, BL 213, BL 230/230L, BL 231/231L, BL 310/310L, EPA 229, PS 175, and one organism-to-biosphere course. Two upper-level electives in the first year at Case Western Reserve University complete the major requirements: NUMN 402 and NUMN 405. 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, have a minimum 3.00 grade point average, 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 Admission Office (through the coordinator of B.S.N. Enrollment) as early as the beginning of their junior year at John Carroll University.

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 141144, 221, 223; DATA 122 (or MT 135 and DATA 228); PL 316; PS 101, 175; SC 101, and EPA 229. 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/donursing/.

## Biology Minors and Interdisciplinary Concentration

An optional minor in biology is available to students majoring in any subject outside of biology.

Biology majors may elect an interdisciplinary concentration or minor in areas such as neuroscience, professional healthcare preparation, 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 page 82 in this Bulletin 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 School Psychology by the end of their first year for guidance on requirements.

## Additional Information

Many courses offered by the 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 of Biology at John Carroll University 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 course transferred from other universities.

102L. SPECIAL TOPICS LABORATORY IN BIOLOGY 0 cr. Corequisite: BL 102. 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 changes 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.
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, hands-on experimental techniques, and computer-based techniques.
115. HUMAN GENETICS AND RACE 4 cr. Corequisite: BL 115L. For nonscience 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.
135. THE SCIENCE OF ORIGINS 3 cr. Prerequisite: EN 125, QA; corequisite: PL 398. Emphasis on critical analysis, problem-solving, quantitative analysis, and written communication within the context of the science of origin as it relates to the universe, our solar system, Earth, and humans. Explains the scientific perspectives on these topics.
136. THE BIOLOGY OF LANGUAGE 3 cr. Prerequisite: EN 125, QA; corequisite: EN 299C. Emphasis on critical analysis, problem-solving, quantitative analysis, and written communication within the context of the biological basis of language within the settings of normal and impaired language.
137. CLIMATE CHANGE 3 cr . Theory of anthropogenic climate change, evidence for recent climate change, predictions for future change, political and ethical issues surrounding the implementation of policy to combat anthropogenic climate change.

140A. THE BIOLOGY OF EMOTION 3 cr. Prerequisite: EN 125, QA; corequisite EN 299F. Emphasis on critical analysis, problem-solving, quantitative analysis, and written communication within the context of the biological basis of emotion.

140B. THE BIOLOGY OF SLEEP AND CONSCIOUSNESS 3 cr. Prerequisite: EN 125, QA; corequisite: EN 299. Examines normal consciousness and perception, alterations of consciousness and perception, and the physical state of sleep and dreams.

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.

199A. BIOLOGICAL PROBLEM SOLVING I 1 cr. Prerequisite: permission of instructor; corequisite: BL 155. One-and-one-quarter hour of lecture per week. Supplemental instruction on the topics of basic chemical principles, cell structure and organization, and metabolism of plants and animals. Students can earn credit towards graduation for both BL 199A and BL 199B, but only 1 credit can count towards the BL, CMB, or ES major.

199B. BIOLOGICAL PROBLEM SOLVING II 1 cr. Prerequisite: permission of instructor; corequisite: BL 156. One-and-one-quarter hour of lecture per week. Supplemental instruction on the topics of anatomy and physiology of plants and animals. Students can earn credit towards graduation for both BL 199A and BL 199B, but only 1 credit can count towards the BL, CMB, or ES major.
213. GENETICS 4 cr. Prerequisites: BL 155-158. Four hours of lecture per week. Principles of molecular, transmission, quantitative, 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 among plants, animals, and the physical environment. Ecological theory as it relates to population ecology, community dynamics, biogeochemical cycles, and biomes.
224. TERRESTRIAL ECOLOGY 3 cr. Prerequisite or corequisite: BL 122, DATA 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. Prerequisites: BL $155-158$ or grade of $B$ or higher in BL 112-112L; grade of C or higher in DATA 122, DATA 228, DATA 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.
241. 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.
242. UNDERGRADUATE BIOLOGY RESEARCH 1-3 cr. Prerequisites: BL 155-158 and permission of instructor. Independent research performed under the direction of a Biology faculty member. May be repeated, but a maximum of 3 credits of BL 295, BL 398, and BL 399 combined will be accepted for any of the biology majors.
243. 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.
244. 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.
245. 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. 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. Prerequisite: BL 155-160. Three hours of lecture/discussion per week. Historical overview of climate change; effects of greenhouse gases, aerosols, and radiative forcing mechanisms on climate processes and feedbacks; effects of rapid climate change on selected ecosystems; predicted future changes; climate denial; political and ethical considerations in implementation of mitigation policies.
350. VERTEBRATE ANATOMY 5 cr. Prerequisites: BL 155-158; 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 per week. 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 BIOLGY 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: BL 159/160 and permission of instructor. Experience in art not required. Develops skills of observation in biological sciences and in how to produce publication-quality illustrations of measured accuracy, conceptualized drawings, and diagrammatic images for dissemination of research results. Development of a concise, comprehensive portfolio showcasing various techniques and graphic styles. An additional fee is required for personal illustration materials. 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 a tropical rain forest in Central or South America required. Introduction to the biology and ecology of the tropics, with an emphasis on tropical field research. Includes experimental design, data analysis, write-up, and presentation. 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 370, or instructor permission. 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.

## 417. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 4

cr. Prerequisites: BL 155-160. Three hours of lecture per week. Introduction to analysis of spatial data using ArcGIS software. Students will acquire hands-on experience with a variety of analytical techniques and spatial data types, and apply their skills to investigate environmental problems using GIS.

## 417L. INTRODUCTION TO GEOGRAPHICAL INFORMATION SYSTEMS

 LABORATORY 0 cr. Corequisite: BL 417. Three hours of lab per week.419. CONSERVATION BIOLOGY 3 cr. Prerequisites: BL 155-160; BL 222 is recommended. Three hours of lecture per week. Overview of the causes and consequences of biodiversity loss at gene, species, ecosystem, and global scales; identification of ecological and evolutionary principles underlying conservation strategies; critical analysis of conservation problems and solutions.
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. BIOLOGY OF THE AMPHIBIA 4 cr. Prerequisites: BL 155-160.

Corequisite: BL 423L. Three hours of lecture per week. Classification, evolution, ecology, and behavior of frogs, salamanders, and caecillians.

423L.BIOLOGY OF THE AMPHIBIA LABORATORY 0 cr. Corequisite: BL 423. 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 disturbances on aquatic systems.

424L. AQUATIC RESOURCES LABORATORY 0 cr. Corequisite: BL 424L. Four hours of laboratory per week. Saturday laboratory with field trips to a variety of Ohio aquatic habitats and analysis of aquatic life in those systems.
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 semester; requires an additional program fee.
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, DATA 228; corequisite: BL 444 L . Three hours of lecture/discussion per week. Topics include predator-prey interactions, global change, niche theory, competition, null models, and community assembly rules.

444L. ADVANCED ECOLOGY LABORATORY 0 cr. Corequiste: BL 444. Three hours of laboratory per week. Students work in teams on a project of their own choosing. Includes experimental design, data analysis, write-up, 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; covers taxonomy of indicator groups.

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 per week; 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: grade of B- or higher in BL 213 or permission of instructor. Three hours of lecture per week. Cell signaling, protein regulation, 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: grade of B- or higher in BL 213 or permission of instructor, 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 with emphasis on eukaryotes. Reading and analysis of current primary literature.
470. MOLECULAR METHODS LABORATORY 3 cr. Prerequisites: CH 431 or 435, BL 215 or CH 437, grade of B- or higher in BL 213 or permission of instructor. Prerequisite/corequisite: BL 465 or 565 . Eight hours of laboratory per week. Methods used in molecular, cellar, and developmental-biology research. Independent research project required.
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. ENDOCRINOLGY 3 cr. Prerequisites: BL 155-158. One hour 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 1-4 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 Professors: M. A. Latcovich (President/Rector), E. Kaczuk; Adjunct Assistant Professors: D. Ference, B. Rath, J. Koopman, M. Woost; Adjunct Instructors: M. Quinlan, A. Marshall

The Borromeo Seminary Institute, 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 Conference of Catholic 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 (BSI).

BSI 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. The formation program at the Seminary in Wickliffe is concentrated on Tuesdays and Thursdays, so that students may attend classes on the JCU main campus on Mondays, Wednesdays, and Fridays from 9:00-5:00.

All BSI students are required to complete the following courses in philosophy, as well as theology and religious studies. Latin and Greek language coursework also is encouraged. Descriptions of the courses can be found in the pertinent department sections in this Bulletin. The Philosophy course sequence is available online at http://www.borromeoseminary.org/academics/philosophy/course-sequence/, while the

Theology course sequence is available at http://www.borromeoseminary.org/ academics/theology/curriculum/.

## PHILOSOPHY

210. Ancient Greek Philosophy 3 cr.
211. Medieval Philosophy and Logic 3 cr.
$240.17^{\text {th }}$ - and $18^{\text {th }}$-Century European Philosophy 3 cr.
$246.19^{\text {th }}$ - and $20^{\text {th }}$-Century Philosophy 3 cr .
212. Philosophy of the Human Person 3 cr.
213. Philosophy of God 3 cr .
214. Ethical Theory 3 cr.
215. What Does Science Prove? 3 cr.
216. Metaphysics 3 cr.
217. Theories of Knowledge 3 cr.

To complete the Philosophy major, BSI students are required to complete one additional 3-cr. elective and either PL 450 (Seminar; 3 cr.) or PL 495 (Senior Thesis; 3 cr .) for a total of 36 credits.

## THEOLOGY AND RELIGIOUS STUDIES

200. Hebrew Bible 3 cr.
201. New Testament Introduction 3 cr.
202. Catechism of the Catholic Church 3 cr.
203. Catholic Moral Theology 3 cr.

## Students may elect other TRS courses, including:

328. The Franciscan Movement 3 cr.
329. What Happened at Vatican II 3 cr.
330. Christian Social Justice 3 cr.
331. Internship 1-4
332. Senior Seminar 3 cr.
333. The Catholic Experience 3 cr.


# Business Intelligence (BI) 

Professor: C. A. Watts (Chair); Associate Professors: M. P. Lynn, R. T. Grenci, B. Hull

Business intelligence, or BI, is an umbrella term that refers to a variety of software application and techniques used to analyze an organization's raw data. BI as a discipline is made up of several related activities, including data mining, online analytical processing, querying and reporting, as well as data summarization and visualization. The objective of the Business Intelligence 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 are relevant to all organizational processes and to all business majors. As such, Business Intelligence courses are an integral part of the business core. They also serve key roles in the management, marketing, and supply chain management majors.

Students interested in a business major that includes the skills and knowledge related to BI should consider the management, marketing, and supply chain management majors. Students interested in software programming and application development should consider a major or minor in the Department of Mathematics and Computer Science, including Data Science, which focuses on statistics, computer science, and mathematics.
100. BUSINESS ANALYSIS WITH EXCEL 1 cr. How to answer key business questions, analyze company finances, forecast sales, and prepare business cases while improving your Excel skills.
200. DATA-DRIVEN DECISION-MAKING 3 cr. Prerequisite: BI 100 or BI 108. Introduction to management information systems, decision support systems, and the data-driven decision process. Special emphasis on database management and the strategic use of information to drive decision-making in organizations. Group projects add practical experience to the conceptual approach.
341. ADVANCED DATA-DRIVEN DECISION-MAKING 3 cr. Prerequisite: BI 200; EC 210 or other comparable statistics class. Develops skills to translate a variety of data types into conceptual insights, and exposes students to "big data" and the analytical process and tools to manage and exploit the data. Topics include data types and sources, constructing queries using SQL data analysis using Excel, Tableau and IBM Watson, predictive analytics, and reporting and presentation of analyses.
371. BUSINESS DECISION OPTIMIZATION 3 cr. Prerequisite: EC 210 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, decision trees, and simulation.
407. SEMINAR IN BUSINESS INTELLIGENCE 3 cr. Prerequisite: BI 200. Study of contemporary issues in business intelligence not covered in depth in other BI courses. Specific topic, presentation method, and requirements designated by the seminar leader.


## Career Education (CE)

Students may apply a maximum of four 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.
102. INTERNSHIP EXPERIENCE 11 cr. Prerequisite: approval of Career Services, minimum 2.5 GPA. Supervised experiential learning in a position relevant to academic career goals. Can be paid or unpaid. The student must complete 135 hours at the internship during the semester and specific course work assigned by the Career Services advisor. Credit is not awarded retroactively. Pass/Fail.
103. INTERNSHIP EXPERIENCE 22 cr. Prerequisites: approval of Career Services, minimum 2.5 GPA. Supervised experiential learning in a position relevant to academic and career goals. Can be paid or unpaid. The student must complete 135 hours at the internship during the semester and specific course work assigned by the Career Services advisor. Credit is not awarded retroactively. Pass/Fail.
104. INTERNSHIP EXPERIENCE 33 cr. Prerequisites: approval of Career Services, minimum 2.5 GPA. Supervised experiential learning in a position relevant to academic and career goals. Can be paid or unpaid. The student must complete 135 hours at the internship during the semester and specific course work assigned by the Career Services advisor. Credit is not awarded retroactively. Pass/Fail.

## 199. INTERNSHIP EXPERIENCE-NONCREDIT TRANSCRIPT

NOTATION 0 cr. Prerequisites: approval of Career Services, minimum 2.5 GPA . Supervised experiential learning in a position relevant to academic and career goals. Can be paid or unpaid. The student must complete 135 hours at the internship during the semester and required documentation. Transcript notation is not awarded retroactively. Experience will be noted on transcript. No academic credit is awarded. Graded Satisfactory/Unsatisfactory.

## 199i. INTERNATIONAL STUDENT INTERNSHIP EXPERIENCE 0 cr.

Prerequisite: Approval of Career Services. Qualifying work experiences must be paid and involve $20+$ hours/week during fall or spring semester sessions. Curricular Practical Training (CPT) approval and Designated School Official (DSO) endorsement must be cleared with the Center for Global Studies. The Academic Advisor Verification Form for Curricular Practical Training must be submitted to the DSO. This course is for International students studying full-time on an F-1 Visa to accept paid internship opportunities requiring $20+$ hours/week during spring or fall semester that are related to their course of study.

## Chemistry (CH)

Professors: P. R. Challen, D. P. Mascotti; Associate Professors: M. A. Nichols (Chair), M. J. Waner, Y. C. Chai, M. L. Kwan, C. D. Bruce; Assistant Professor: M. P. Setter; Visiting Instructor: M. K. Doud

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 (CPT) of the American Chemical Society (ACS).

A bachelor of science in Chemistry is for students who desire a systematic training in chemistry (including biochemistry) as background for a career in chemistry, as well as in other related fields such as: health professions (e.g., medicine, dentistry, pharmacy, nursing, physical therapy, and physician assistant), business, education*, environmental science, information science, journalism, forensic chemistry, or law. (*Students wishing to teach chemistry or general science in secondary schools should confer with the Department of Education and School Psychology during their first year.) As an ACS-approved program, students completing the minimum requirements outlined by the CPT will be certified to ACS. There are pathways for all chemistry majors to achieve certification, and interested students should consult with their academic advisor or the department chair.

Combined with a minor in Business (see page 89), a Chemistry major is excellent preparation for a career in industrial chemistry or as an entrepreneur if one's goal is management or pursuing an M.B.A. degree. 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 first or second year.

Combined with a second major or minor from the Department of Sociology and Criminology, a Chemistry major is excellent preparation for employment or graduate study in Forensic Chemistry.

Students interested in Neuroscience should investigate adding to that concentration a Chemistry major with a concentration in Biochemistry as early as possible in their academic careers. Interested students should refer to page 83 in this Bulletin for more information.

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 students 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.

## Optional Concentrations in Chemistry

The Concentration in Chemical Physics 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 this concentration 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 Concentration in Biochemistry 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.

## Application

Typically in the spring semester of the sophomore year, all intended chemistry majors must make a formal application to the department to be accepted as majors. Applicants with a minimum GPA of 2.5 in the initial 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 initial chemistry core sequence, will be considered for conditional acceptance as a chemistry major.

Chemistry majors must maintain a GPA of 2.0 in the chemistry courses and in the required sequence of support courses.

## Program Learning Goals in Chemistry.

Students will:

1. Demonstrate a working knowledge in the sub-disciplines of chemistry where they have completed course work (at least four of analytical, biochemistry, inorganic, organic and physical).
2. Apply their integrative knowledge of chemistry to solve problems.
3. Demonstrate competency in the laboratory skills necessary to acquire, analyze, and interpret experimental results.
4. Effectively communicate scientific information in a variety of forms (written, oral, mathematical).

## 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.

Requirements: 48-56 total credit hours. CH 141, 142, 143, 144 (or 151 and 153), $221,222,223,224,261,263,361$, or 365 and $366,367,441,443,478 \mathrm{~A}, 478 \mathrm{~B}$, and 2 upper-division electives (CH 366 will count as one of these electives). CH 399 is strongly encouraged. The Capstone experience of the University Core Curriculum will be satisfied by CH 443, CH 398, or CH 399D.

Required Support Courses: MT 135, 136 (by permission MT 228 may substitute for MT 136), PH 125, 125L, 126, 126L (or PH 135, 135L, 136, 136L).

Concentration in Chemical Physics: 72-77 total credit hours. Students must take the CH 365-366 sequence, as well as MT 136, PH 135, 135L, 136, 136L in the support sequence. Additionally, students must take CH 431, 481 as their upperdivision electives, CH 368 , CH 482 , and a minimum of 6 additional credits of upper-division electives, at least one of which is laboratory-based.

Additional Required Support Courses: MT 233; EP 217; and PH 246 or 325. Prechemical engineering students should take PH 246.

Concentration in Biochemistry: 61-73 total credit hours. Students must take CH 435 and 436 as their electives, 437, and three additional approved upperdivision CH or BL electives, of which at least one is CH. Although CH 441 and CH 443 are not required for the concentration in Biochemistry, it is strongly recommended that both be taken as one of the upper-division electives.

Upper-division biology electives may be selected from BL 213, 301, 302, 310-310L, $350-350 \mathrm{~L}, 360-360 \mathrm{~L}, 410,459,465,470,471,475$, or other courses approved by the chemistry department chair. Premedical students are strongly advised to select BL 213 as one elective.

Additional Required Support Courses: BL 155-156, 157-158.
Minor in Chemistry: 19-24 hours. CH 141, 142, 143, 144 (or 151 and 153), 221, $222,223,224$ and at least two additional chemistry lecture courses at the 200 level or above.

## Interdisciplinary Concentration

The department collaborates in the interdisciplinary concentration in neuroscience. It is strongly recommended that students interested investigate the neuroscience concentration as early as possible in their academic careers. Interested students should refer to page 83 in this Bulletin for more information.

Those who participate in the neuroscience concentration should complete the concentration in Biochemistry.

## 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 Case Western Reserve University. 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 Case Western Reserve. Further details are provided under "Engineering Programs" in "Preparation for Graduate and Professional Studies" (page 101).
2. They may complete the B.S. in chemistry (ordinarily with a concentration in Chemical Physics) and then enter an engineering school to obtain an advanced 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 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 page 171 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

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 course sequences. The requirements for the minor appear on a previous page.
103. ENVIRONMENTAL CHEMISTRY 3 cr. Corequisite: CH 103L. Application of chemical principles to environmental and ecological problems. Fulfills the distributive natural science requirement of the Integrated Core Curriculum.

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. Fulfills the distributive natural science requirement of the Integrated Core Curriculum.

105L. CHEMISTRY IN SOCIETY LABORATORY 1 cr. Corequisite: CH 105. Two hours of laboratory per week. Laboratory experience in topics discussed in CH 105.
108. INTRODUCTORY CHEMISTRY BY INQUIRY 3 cr. Prerequisite: EN 125; corequisite: PH 108. An inquiry-based introduction to fundamental concepts of chemistry. Exploration of interactions and energy, then interactions and forces, which occurs across the two linked courses. Investigates gases, physical changes, and chemical changes. For non-chemistry majors.

141-142. GENERAL CHEMISTRY I-II 4 cr. each. Corequisites: CH 143-
144. Stoichiometry, thermochemistry, states of matter, atomic structure, chemical bonding, molecular structure, oxidation-reduction, acid-base, solutions. Homogeneous and heterogeneous equilibria, thermodynamics, electrochemistry, kinetics, chemistry of metals and non-metals, and other relevant topics. CH 141 fulfills the distributive natural science requirement of the Integrated Core Curriculum.

## 143-144. GENERAL CHEMISTRY LABORATORY I-II 1 cr. each.

Corequisites: 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 stoichiometry, thermochemistry, states of matter, atomic structure, chemical bonding, oxidation-radiation, molecular structure, acid-base, solutions, thermodynamics, kinetics, equilibria, electrochemistry, chemistry of metals and non-metals. Fulfills the distributive natural science requirement of the Integrated Core Curriculum.
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.
170. FORENSIC CHEMISTRY 3 cr. Prerequisites: EN 125 (or equivalent). Corequisite: EN 199. Emphasis on critical analysis, problem-solving, quantitative analysis, and written communication within the context of the biochemistry of poisons. CH 170 and EN 199 fulfill the linked course requirement of the Integrated Core Curriculum.
171. INFORMED HEALTH DECISIONS 3 cr. Prerequisites: EN 125 (or equivalent); corequisite: ER 201. Basics of biochemical literacy which enables non-science students to make better informed decisions on issues related to health, including diseases, nutrition, and medications. CH 171 and ER 201 fulfill the linked course requirement of the Integrated Core Curriculum.
172. FORENSIC BIOCHEMISTRY 3 cr. Prerequisites: EN 125 (or equivalent); corequisite: PO 213. Basic biochemical principles and techniques as they pertain to forensic science. Emphasis on quality assurance, quality control, analysis, and interpretation of biochemical evidence for the legal system. CH 172 and PO 213 fulfill the linked course requirement of the Integrated Core Curriculum.
173. ENERGY, AN IMPORTANT COMMODITY 3 cr. Prerequisites: EN 125 (or equivalent); corequisite: ER 201. Focuses on the impact of chemical and physical discoveries on our way of life. Enables the student to develop an appreciation of chemistry's influence on life and to apply that knowledge in making important personal and societal choices regarding energy usage. CH 173 and ER 201 fulfill the linked course requirement of the Integrated Core Curriculum.
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; hypothesis testing, analysis of variance, correlation and regression confidence intervals, estimation, sampling distributions; equilibria; redox chemistry; basic principles of modern electrochemical, spectroscopic, and chromatographic analysis; sampling and sample preparation. CH 261 and 263 fulfill the foundational Quantitative Analysis (QA) requirement of the Integrated Core Curriculum.
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, including principles of the collection, display, and analysis of data. CH 261 and 263 fulfill the foundational Quantitative Analysis (QA) requirement of the Integrated Core Curriculum.
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), 221224, MT 135 or MT 133 and 134; prerequisites/corequisites: 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 0-3 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. Completion of CH 399D ( 0 cr) satisfies the Capstone, Additional Writing and Oral Presentation requirements of the Integrated Core Curriculum. The prerequisites for CH 399D are CH 367, CH 478 and at least two credits of CH 399.
431. GENERAL BIOCHEMISTRY 4 cr. Prerequisites: CH 221-224. Onesemester 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, anticancer drugs, regulation of gene expression, angiogenesis, pharmacokinetics gene delivery, and new developments in laboratory methods and instrumentation.
441. INSTRUMENTAL ANALYSIS 3 cr. Prerequisites: CH 261; prerequisite 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. CH 443 satisfies the Capstone, Additional Writing and Oral Presentation requirements of the Integrated Core Curriculum.
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, structure and bonding in molecules, symmetry and point groups, solid state materials, acid/base and redox chemistry, coordination chemistry, aspects of main group and transition metal chemistry.
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: L. Ke, X. Liu

The program in Chinese is offered by the Department of Classical and Modern Languages and Cultures. 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. China is the largest trading nation in the world, plays a very important role in international trade, and also has a close economic relationship with the United States. 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.

Independent study courses are available to students who have completed advancedlevel courses. Students are strongly encouraged to explore the East Asian Studies interdisciplinary major-minor program described on page 218. Students who may be interested in a self-designed minor in Chinese language should consult with the coordinator of the Chinese language program and/or the CMLC department chair. (Permission of the appropriate associate dean of the College of Arts and Sciences is also required.)

Students are also encouraged to participate in study-abroad programs and should consult early on with the coordinator or the Chinese language program and/or the department chair, and also with the Center for Global Education.
101. BEGINNING CHINESE 13 cr. Intensive functional approach to the four language skills in a cultural context. Classroom, multi-media, computer-assisted instruction. For students with little or no knowledge of Chinese, or by placement test. (Fall)
102. BEGINNING CHINESE II 3 cr. Prerequisite: CN 101 or equivalent or by placement test. Amplification of language skills in a cultural context. (Spring)

## 110. SPEAKING IN CHINESE: BEGINNING 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 the Core language requirement. (Fall: 110A; Spring: 110B)
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 or by placement test. CN 201 or equivalent prerequisite for CN 202. Further development of the four language skills for communication in a cultural context; expansion 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 202, 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 the Core language requirement. (Fall: 210A; Spring: 210B)
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 or by placement test. CN 301 or equivalent prerequisite for CN 302 . Advanced study of the four language skills for communication in a cultural context; expansion 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 the Core language requirement. (Fall: 310A; Spring: 310B)
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. Prerequisite: permission of instructor. Supervised advanced independent study. 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.

# Classical and Modern Languages and Cultures (CMLC) 

Professors: K. M. Gatto, S. Casciani, G. Compton-Engle (Chair); Associate Professors: G. J. Sabo, S.J., E. Luengo, M. Pereszlenyi-Pinter, J. Karolle-Berg, L. Ferri, K. A. Ehrhardt, M. L. Thornton; Assistant Professor: K. Nakano

Language study helps students become more competent global citizens. Language courses at John Carroll University put students in direct interaction with authentic cultural materials created in other languages and increase their capacity to understand the perspectives of other people and cultures. When students communicate in another language, even at a basic level, they experience new modes of listening, speaking, and interpreting the expressions of others. Language study has always been part of Jesuit education, but now, at the beginning of the $21^{\text {st }}$ century, increased global connectedness makes it all the more important that our students have experience communicating in languages other than English.

Consistent with the University's mission, the Department of Classical and Modern Languages and Cultures is committed to contributing to the development of students into responsible citizens of the world who excel in learning, leadership, and service. The department especially seeks to meet John Carroll's Academic Learning Outcome \#5, to graduate students who will "act competently in a global and diverse world." The Department contributes to this academic learning outcome through its own learning goals. Consistent with best practices of second language acquisition, these three goals are sought at all levels of instruction:

- Students can communicate skillfully and effectively in a language other than English, at a level commensurate with the language and program.
- Students can demonstrate foundational cultural and linguistic knowledge of a target-language area.
- Students can demonstrate emerging intercultural competence.

Courses in language study will actively involve the four skills of language learning: listening, speaking, reading, and writing. Courses will also introduce students to cultural materials relevant to the area of language study.

The department offers majors and minors in Classical Languages (Latin, Ancient Greek), Classical Studies, French and Francophone Studies, Spanish and Hispanic Studies, and Italian Studies (self-designed major or minor), and a minor in German.

Courses are also available in Chinese, Japanese, Russian, Slovak, and International Cultures. These programs have their own sections in the Bulletin. Students are invited to inquire about self-designed minors in these languages upon consultation
with the individual language coordinators and the department chair. Permission of the associate dean of humanities is required.

The Classical Studies (CL) courses are taught in English. Additionally, the department offers International Cultures (IC) courses, all of which are taught in English translation. The IC courses in particular are aimed at providing a crosscultural approach to understanding today's multicultural world. They involve art, film, popular culture, historical perspectives, and literature. Many courses fulfill Division II and special designations (especially R, S, and L) in the outgoing University Core Curriculum, while others fulfill requirements in the new Integrative Core Curriculum.

Interdisciplinary majors and minors include East Asian Studies (page 218) and Modern European Studies (page 95).

## Major and Minor Requirements <br> CLASSICS

Major in Classics: 36 credit hours.
Classical Languages track: Nine 3-credit courses in GK and/or LT at any level; CL 301 or 302; CL 410; and another CL course.

Classical Studies track: Six 3-credit courses in GK and/or LT at any level, CL 220, CL 250, CL 330, or another approved literature course; two of the following: CL 301, CL 302, HS 205, HS 305, AH 317, or another approved CL, HS, or AH course; two of the following: PL 210, PL 215, TRS 205, or another approved PL or TRS course; CL 410.

Minor in Classical Studies: 18 hours; details on page 188.
MODERN LANGUAGES
Major in French and Francophone Studies, French Studies Track: 30 credit hours. Details on page 284.

Major in Spanish and Hispanic Studies: 30 credit hours. Details on page 426.

Minors in French and Francophone Studies, German, or Spanish and Hispanic Studies: 15-18 hours; see individual language sections.

## Integrative Core Courses and the Language Requirement (effective Fall 2015)

Students who choose to continue in the language that they took in high school will be required to complete the third semester (the current 201 course) in that language. This establishes the basic threshold of competency at the early-intermediate level, and ensures that students will not merely repeat what they learned in high school. If students place above the 201 level, this Core requirement will be waived. Students who choose to begin a new language will be required to take two semesters of that language (the current 101-102 courses). Certain upper-division courses taught in the foreign language, as well as courses in CL (Classics, taught in English) and IC (International Cultures, taught in English) may also count toward the new Integrative Core.

## Study Abroad

Interested students should consult with their language program advisor or the language section coordinator, as well as the Center for Global Education, and check the Global Education website often for updates on new and existing programs. Currently, the department participates in the following semester or year-long programs abroad:

- Chinese: Beijing (Jesuit Center)
- French: Institut Catholique d'Etudes Supérieures (ICES), La Roche sur Yon France; NEOMA Business School, Rouen, France
- German: Universität Dortmund, Germany (exchange program); WHU - Otto Beisheim School of Management, Vallendar, Germany
- Italian: Rome (John Carroll program; fall semester)
- Japanese: Sophia University (Tokyo); Nanzan University (Nagoya); Kansai Gaidai University (Osaka)
- Spanish: Costa Rica; Madrid (John Carroll programs; fall semester); Comillas Pontifical University, Madrid; Casa de la Solidaridad, El Salvador; Universidad del Pacífico, Lima, Perú

The following short programs are also sponsored by the department:

- Classics: Greece (spring break)
- French: France (spring break)
- Italian: Italy (spring break and summer institute)
- Japanese: Japan (2-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 upper level, upon their return from abroad. If, however, students take their capstone course for their major abroad, the residence requirement may be waived. The department may require more than 6 semester hours of credit in the case of obvious deficiencies.

## Teaching Licensure

The Department of Education and School Psychology at John Carroll does not offer multi-age licensure ( $\mathrm{K}-12$ ) 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 chair of the education department for details.


## Classics (CL)

## Professor: G. Compton-Engle (Chair); Associate Professor: K. A. Ehrhardt

Courses in classical studies are offered by the Department of Classical and Modern Languages and Cultures. The department offers major programs in classical languages and classical studies, as well as a minor in classical studies and a variety of individual courses that may be used to fulfill Core requirements or taken as electives. For courses in Latin, see page 332; for courses in ancient Greek, see page 297.

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 elect to earn the Bachelor of Arts in Classics degree (B.A.Cl.), instead of the B.A. or B.S., by completing four Latin courses at the 200 level or above. Students choosing the B.A.Cl. must still meet all the requirements for their major.

Courses with the CL designation are offered in English for students with an interest in classical culture but no knowledge of Greek or Latin. Some of these courses also may be used for Core requirements. There are no prerequisites for any CL course except CL 410. All CL courses are taught in English.

## Program Learning Goals in Classics.

Students will:

1. Communicate skillfully and effectively in both English and either Greek or Latin:
a) engage in effective interpretive reading;
b) engage in effective presentational speaking (English only);
c) engage in effective presentational writing.
2. Demonstrate knowledge about ancient Mediterranean societies and their cultural products.
3. Apply critical analysis and aesthetic appreciation.
4. Explore modes of religious experience in the ancient world.

## Major and Minor Requirements

Major in Classics: 36 credit hours.
Classical Languages track: Nine 3-credit courses in GK and/or LT at any level; CL 301 or 302; CL 410; and another CL course.

Classical Studies track: Six 3-credit courses in GK and/or LT at any level; CL 220, CL 250, CL 330, or another approved literature course; two of the following: CL 301, CL 302, HS 205, HS 305, AH 317, or another approved CL, HS, or AH course; two of the following: PL 210, PL 215, TRS 205, or another approved PL or TRS course; CL 410.

CL 410 fulfills the capstone requirement for either track in the major and should be completed during the student's junior or senior year.

Minor in Classical Studies: 18 hours. Six courses in any combination of GK, LT, CL, PL 210, PL 215, TRS 205, AH 317, HS 205, HS 305, or other approved course focused on the ancient world.
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.
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.
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.
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. TOPICS IN ANCIENT GREEK HISTORY 3 cr. Introduction to Greek history through consideration of primary sources (e.g., historical documents, material culture, or literary texts). Topics may focus on a period or theme in Greek history between the Bronze Age and incorporation into the Roman empire.
302. TOPICS IN ROMAN HISTORY 3 cr. Introduction to Roman history through consideration of primary sources (e.g., historical documents, material culture, or literary texts). Topics may focus on a period or theme from the Roman Republic and/or Empire.
330. BARBARIANS: CONSTRUCTING THE SELF AND OTHER IN THE ANCIENT WORLD 3 cr. Origins and functions of cultural stereotyping and scapegoating in the ancient world through consideration of historical texts, material culture, and modern theoretical approaches. Attention paid to the interactions of the cultures of Greece, Rome, and the ancient Near East, among others.
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.
398. ADVANCED INDEPENDENT STUDY 1-3 cr. 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.
410. CAPSTONE SEMINAR 3 cr. Prerequisites: junior or senior standing; declared major in classical languages or classical studies; permission of instructor. Introduction to research methods in classics through in-depth study of a particular theme. Strong emphasis on writing and presentation of individual research.
497. UNDERGRADUATE RESEARCH ASSISTANT 1 cr. Prerequisites: junior or senior standing; permission of instructor. Allows students to become more familiar with the research process through assisting faculty members in their research. Pass/Fail. May be repeated for a cumulative maximum of 3 credit hours.
498. ADVANCED INDEPENDENT STUDY 1-3 cr. Supervised independent study. 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.

# The Tim Russert Department of Communication and Theatre (COMM) 

Professors: J. J. Schmidt, M. E. Beadle; Associate Professors: D. R. Bruce, B. G. Brossmann, K. L. Gygli, M. O. Finucane (Chair); Assistant Professors: C. Buchanan, S. Park; Instructor: C. DeVoss; Visiting Instructor: W. J. Weaver

The Tim Russert Department of Communication and Theatre offers students three areas of concentration within the major: Communication Studies, Digital Media, and Integrated Marketing Communication. Within each concentration are pathways that students use to focus their learning based on their interests. Each area offers students the theory and praxis that will enable them to flourish in our everchanging, convergent communication environment. The Russert Department is a nationally recognized program.

The National Communication Association defines our discipline as follows:
"Communication as an academic discipline relates to all the ways we communicate, so it encompasses a large body of study and knowledge. The communication discipline includes both verbal and nonverbal messages, as well as messages that are sent through mediated channels such as the phone, computer, radio, and television. Textbooks, academic journals, and electronic publications provide a body of scholarship and theory about all forms of human communication. In the journals, researchers report the results of studies that are the basis for an ever-expanding understanding of how we all communicate."

We are pleased to include theatre courses as part of the major.

## Program Learning Goals in Communication.

Graduates of the Russert Department will have the knowledge and ability to:

1. Create, present, and advocate ethical messages in a variety of communication forms for diverse audiences.
2. Evaluate message effectiveness and ethics.
3. Analyze how audiences receive, interpret, and react to messages.
4. Apply communication theories and perspectives to specific contexts.
5. Implement a research methodology appropriate to their area of study.

The major provides students opportunities to develop critical thinking and communication excellence in writing and speaking. Students complete foundational courses 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.

Department facilities include the WJCU-FM radio station, the Marinello Little Theatre, Kulas Auditorium, the debate lab, the multimedia lab, and the Klein Television Studio, where students learn studio and field production/editing.

Internships and independent study opportunities provide students with experiences beyond the classroom. Students gain experience in a communication industry while earning academic credit. The department has an established network of internships in the Cleveland area-one of the country's largest communication markets. Internships are available at major media outlets, including television, radio, newspapers, and cable companies; public relations and advertising agencies; corporate and non-profit organizations; and theatres.

Recent John Carroll Communication alumni have careers in broadcasting and journalism, public relations and advertising, sales and promotions, law, 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, theatre, management, education, public affairs, or law.

The department is named in honor of the late Tim Russert '72. Mr. Russert was an American icon. He had a magnetic presence as the managing editor and moderator of NBC's Meet the Press, the longest running, most popular and most influential of the Sunday morning political talk shows during his tenure. In 2016, his family donated a permanent display from Mr. Russert's Meet the Press set and video excerpts from his historic interviews to the University. The display, located in the O'Malley Center Atrium, keeps Mr. Russert's memory alive on campus and is a reminder of the collaboration that resulted in the creation of the exclusive NBC/JCU Meet the Press Fellowship.

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 leading public affairs program, and requires a broadly-based background in Communication and Political Science courses. For more information, consult the website http://sites.jcu.edu/mtpfellowship/pages/tim-russert/).

## Major and Minor Requirements

Major in Communication: 42 credit hours (24 must be earned at John Carroll University)
I. COMM Core classes completed by all communication students. 15 hours:
A. COMM 130 Audience Matters
B. COMM 140 Communication, Technology, \& Society
C. COMM 205 Professional Communication
D. COMM 208 Interpersonal Communication
E. COMM 305 Communication Ethics
II. COMM Concentrations

## Communication Studies Concentration

Students in the Communication Studies Concentration are required to complete 27 hours within the concentration, 21 of which must be at the $300 / 400$ level.
There are three required elements (research/writing, theory, and capstone) and six electives. Students complete the following required research/writing course:

COMM 206 Communication Research Methods

The theory course requirement is met by taking one of the following:

COMM 300 Communication Theory
COMM 420 International Theatre
COMM 411 Persuasive Communication Theory

The capstone course requirement is met by taking one of the following:
COMM 410 Communication Analysis
COMM 475 Theatre Capstone
Choose six electives, four of which must be at the 300-400 level:

COMM 210 Argumentation and Advocacy
COMM 220 Introduction to Theatre
COMM 221 Acting for the Stage
COMM 223 Theatre Production
COMM 240 Introduction to Mass Communication
COMM 301 Intercultural Communication
COMM 310 American Voices
COMM 311 Campaign Issues and Images
COMM 312 Narrative \& Storytelling
COMM 320 North American Theatre

COMM 321 Design for the Stage
COMM 322 Directing for the Stage
COMM 345 Diversity, Stereotypes, and Mass Media
COMM 354 Social Issues in Journalism
COMM 370 How We Live: Understanding Consumers
COMM 450 Communication Law

## Digital Media Concentration

Students in the Digital Media Concentration are required to complete 27 hours within the concentration, 21 of which must be at the $300 / 400$ level. There are five required elements (intro, research/writing, theory, internship, and capstone) and four electives. Students complete the following courses:

COMM 240 Introduction to Mass Media
COMM 498 Internship
COMM 496 Digital Media Capstone
The writing requirement is met by taking one of the following:
COMM 250 Journalism
COMM 340 Writing Screenplays
COMM 360 Media Writing

The research methods requirement is met by taking one of the following:
COMM 206 Communication Research Methods
COMM 241 Introduction to Video Production
Choose four electives, at least three of which must be at the 300-400 level:
COMM 242 Fundamentals of Media Performance
COMM 302 Feature Photography
COMM 334 Documentary
COMM 335 American Film
COMM 336 International Film
COMM 342 Audio Production
COMM 343 Working in Sports Media
COMM 345 Diversity, Stereotypes \& the Media
COMM 346 Women in Media
COMM 351 Photojournalism
COMM 352 Investigative Reporting
COMM 354 Social Issues in Journalism
COMM 355 Health Writing
COMM 440 Advanced Video Production
COMM 455 Communication Law

## Integrated Marketing Communication (IMC) Concentration

Students in the Integrated Marketing Communication Concentration are required to complete 27 hours within the concentration, 21 of which must be at the 300/400 level. There are four required elements (research/writing, theory, internship, and capstone) and two electives. Students complete the following courses:

COMM 270 Introduction to IMC
COMM 360 Media Writing
COMM 370 How We Live: Consumer Research
COMM 372 Branding
COMM 472 IMC Campaigns
COMM 497 IMC Capstone: Organizational Communication
COMM 498 Internship
Choose two electives, one of which must be at the 300-400 level:
COMM 241 Introduction to Video Production
COMM 274 Introduction to Health Communication
COMM 302 Feature Photography
COMM 344 Media Sales and Marketing
COMM 371 Web \& Interactive Design
COMM 373 Sports Promotion \& Fan Engagement
COMM 374 Health Campaigns
COMM 375 Communication in Health Settings
COMM 376 Crisis Communication
COMM 411 Persuasion
COMM 470 Consulting, Training, \& Development
COMM 471 Managing New Media: Campaigns \& Analytics
COMM 473 Non-profit Marketing
COMM 474 Event Planning

## Minor in Communication: 21 credit hours.

Choose one theory course:
COMM 240 Introduction to Mass Media
COMM 270 Introduction to IMC
COMM 300 Communication Theory
COMM 411 Persuasive Communication Theory

Choose one methods course:

COMM 206 Communication Research Methods
COMM 370 How We Live: Consumer Research

Choose five electives, four of which must be at the 300-400 level

## Minor in Theatre: 21 credit hours

Both of the following courses:

COMM 220 Introduction to the Theatre
COMM 221 Acting for the Stage

With permission of the department chair, students may substitute:

EN 203 Introduction to Short Fiction
EN 222 Introduction to Shakespeare
CL 250 Classical Drama in English
Two of the following courses:

COMM 223 Theatre Production

3 hours of Scriptwriting (COMM 340 Writing Screenplays; 3 cr.); COMM 150
(Writing Documentaries; 1 cr.); COMM 151 (Playwriting; 2 cr.); COMM 152
(Writing TV Dramas and Comedies; 2 cr .)
One of the following courses:

COMM 321 Design for the Stage
COMM 322 Directing for the Stage
COMM 399 Seminar/Special Topics in Communication
One of the following courses:

COMM 320 North American Theatre
COMM 420 International Theatre

The following course is required:

COMM 422 Theatre Capstone
***Please note that students in the Theatre minor who then decide to major in COMM, or who decide to pursue a general COMM minor, may count up to nine credit hours of the minor toward the completion of the COMM major requirements, or to a general COMM minor, when the same courses count toward both.


#### Abstract

101. JOURNALISM EXPERIENTIAL COMPONENT 1 cr. Prerequisite: permission of instructor. Reporting and editing for publication. Interviewing techniques, beat reporting, newspaper graphics, layout, and design. Pass/Fail. May be repeated for a maximum of 3 credits. Highly recommended for students in the Digital Media concentration but does not fulfill requirements for the major or minor.


102. FORENSICS EXPERIENTIAL COMPONENT 1 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 experience or a demonstrated equivalency. Pass/Fail. May be repeated for a maximum of 3 credits.
103. RADIO EXPERIENTIAL COMPONENT 1 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. Highly recommended for students in the Digital Media concentration but does not fulfill requirements for the major or minor.

## 104. INTEGRATED MARKETING COMMUNICATION EXPERIENTIAL COMPONENT 1 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.

105. TELEVISION EXPERIENTIAL COMPONENT 1 cr. Prerequisite: permission of instructor. Effective participation in preparation and production of campus cable news program. Attendance at productions required. Pass/Fail. May be repeated for a maximum of 3 credits. Highly recommended for students in the Digital Media concentration but does not fulfill requirements for the major or minor.
106. THEATRE EXPERIENTIAL COMPONENT 1 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.
107. RADIO BOOT CAMP 1 cr . Prerequisite: permission of instructor. Operations, programming, and on-air performance in an FCC-licensed broadcast radio station. Emphasis on learning the fundamental aspects of radio station organization and operation as well as developing a framework for engaging in on-microphone performance. WJCU-FM, the university's Class A NCE FM radio station, will provide the facilities and context for this course.
108. IMPROVISATION 1 cr . Prepares students to concentrate and to speak extemporaneously in front of an audience.
109. BASIC PHOTOGRAPHY FOR THE DIGITAL AGE 1 cr. A condensed photographic course for learning elemental skills of visual communication, using digital cameras, smart phones, and/or electronic tablets, and applying computer processing for Web postings. Ethics involved in photo choice, processing, and placement; issues of photo manipulation, fairness, diversity, privacy, and copyright for $\mathrm{Web} /$ print stories.
110. PHOTOSHOP 1 cr. Basic photo editing principles and journalism practices. Introduction to the Photoshop interface, and essentials for editing photos. Cropping, color correction, photo design, and photo editing ethics.
*Note: The one and two-credit courses complete elective hours toward graduation but do not fulfill major requirements.
111. SPEECH COMMUNICATION 3 cr. The Oral Foundation competency course for the University. Features the principles of oral communication, applying communication theory to the preparation and delivery of speeches in informative, argumentative, and persuasive settings with appropriate technology. Uses audience analysis and adaptation to foster development of communication competence, critical analysis, and aesthetic appreciation, all within an ethical framework.
112. AUDIENCE MATTERS 3 cr . In communication, the audience matters because all effective communication is tailored to an audience. The audience also encompasses different dimensions, conceptions, and uses of any individual or group who receives a message. Introduction to a wide range of audience matters, including how communicators analyze, target, develop, empower, commodify, ignore, and survey audiences; also, how audiences receive, interpret, create, and co-create messages.
113. COMMUNICATION, TECHNOLOGY, \& SOCIETY 3 cr. New and emerging communication technologies and their influence on our culture and relationships. Primary focus on digital and mobile technologies and practices. Examination of ways that new media influence existing media and institutions, interpersonal relationships, and individuals. Examination of digital platforms such as YouTube, Facebook, Wikipedia, Twitter, eBay, Flickr, and Second Life and the ways they are reshaping everyday lives and relationships.
114. WRITING DOCUMENTARIES 1 cr . Skills include how to research a story, outline an idea, develop a treatment, structure a documentary, create a shot sheet, and write a shooting script. Does not fulfill requirements for the major.
115. PLAYWRITING 2 cr. Concepts of dramatic structure in playwriting and major elements that go into a dramatic work for the theater. Analysis and application of theatre production methodologies in writing plays. Does not fulfill requirements for the major.
116. WRITING TV DRAMAS AND COMEDIES 2 cr. Explanation of the process of writing drama and comedy for television. Close analysis of appropriate text and series episodes; development of full-length drama or comedy. Does not fulfill requirements for the major.
117. INTERVIEWING SKILLS 1 cr. Development of ability to manage interviews in employment and persuasive/sales settings using application/practice in interview settings.
118. CONFLICT NEGOTIATION 1 cr. Tools individuals and groups can use to manage conflict in constructive ways.
119. SOCIAL MEDIA ANALYTICS 3 cr. Understanding the trends, dynamics, and networking patterns among social media users. Addresses data gathering, analytics, visualization, and interpretation techniques to track the diffusion of information, identify trends in messages, reveal influential users, and understand user sentiment surrounding topics on social media networks.

## 198. INTERNSHIP NONCREDIT/TRANSCRIPT NOTATION 0 cr .

Prerequisite: instructor permission. Open to COMM majors who want their internship recognized but do not need/want credit. Creates a supervised learning experience. Noted on transcript.
205. PROFESSIONAL COMMUNICATION 3 cr. Prerequisites: COMM 125, COMM 130, and COMM 140. Development of communication skills required for professional communicators across a broad set of communication media, including individual and team presentations, written texts, and digital interactions. Primary focus is on strategic thinking combined with writing that produces effective messages aimed at different audiences.
206. COMMUNICATION RESEARCH METHODS 3 cr. Prerequisite: COMM 130. Increases knowledge and understanding of communication as an academic discipline. Focus on developing hypotheses, applying qualitative and quantitative research methods, developing competency in identifying and critically analyzing useful resources, and creating clear and concise written and oral arguments.
208. INTERPERSONAL COMMUNICATION 3 cr. How people establish, maintain, and alter relationships with friends, strangers, work associates, and family members in professional, personal, and cross-cultural 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.
210. ARGUMENTATION AND ADVOCACY 3 cr. Prerequisite: COMM 125 or CO 100. How to be responsible and effective advocates for ideas, causes, and policies. Cultivates respect for the vital role of evidence in a world too often factually challenged.
220. INTRODUCTION TO THEATRE 3 cr . Why has theatre as an artistic live performance survived in the face of censorship, disapproval, and competition from technology? An examination of theatre's place in human history, its elements, and milestones in artistic movements.
221. ACTING FOR THE STAGE 3 cr. Study of both the theory and practice of acting; involves memorized monologues and scene work with a partner. Work with students in the directing class. Emphasis on empathy and collaboration.
223. THEATRE PRODUCTION 3 cr. Exploring many areas of collaboration behind the scenes in a theatre production. Involvement in the faculty-directed and Dennis Lane one-acts; introduction to backstage and front-of-house collaboration with the artistic staff.
240. INTRODUCTION TO MASS MEDIA 3 cr . Surveys the basic factors affecting mass communication in the digital age, including theories and models of communication, media effects on society and politics, history, technology, and trends in newspapers, radio, television, film, books, the Internet (social media), advertising, public relations, visual messages, media law and ethics, and global connections.
241. INTRODUCTION TO VIDEO PRODUCTION 3 cr . 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.
242. FUNDAMENTALS OF MEDIA PERFORMANCE 3 cr. Development of skill, style and a professional attitude about performance for the media. Voice development, news presentations, interviewing, commercial delivery, microphone, and camera techniques. Analysis of announcing copy to develop a performance that integrates appropriate vocal technique, characterization, and emotional interpretation. Experience in the studio and field production process. Applied work in a radio setting, TV Field and Studio, podcast and internet streaming.
250. INTRODUCTION TO JOURNALISM 3 cr . Introduction to newsgathering and newswriting for print, broadcast, online and social media. Builds practical experience in verification, interviewing, reporting on events and issues, and writing news and features. Brief introductions to journalism history, current ethical and practical issues, and the legal hazards faced by journalists. Some assignments offer students a choice to cover events and issues in their area of interest.

## 270. 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.274. INTRODUCTION TO HEALTH COMMUNICATION 3 cr. Introduction to health communication and the ways communication shapes health and health practices. Emphasis on interpersonal communication, information seeking behaviors, risk assessment, social support, diverse populations, communication technologies, and media influence of health perceptions and behaviors.
275. INTERNSHIP 1 cr. Prerequisite: instructor permission. Intended for sophomores who are COMM majors or students who have expressed an intent to declare a COMM major. Supervised experiential learning opportunity with accompanying assignments designed to deepen student awareness of career options in Communication fields. May be repeated twice. Does not fulfill requirements for Communication major or minor.
276. COMMUNICATION THEORY 3 cr. Prerequisite: COMM 130. Theories and perspectives on communication through speech, interpersonal conversation, media; theories across a variety of contexts, including advertising, public relations, and news.
277. INTERCULTURAL COMMUNICATION 3 cr. Concepts and theories of communication to understand the interactions of values, beliefs, traditions, identities, and food in multiple cultures. Examination of 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.
278. FEATURE PHOTOGRAPHY 3 cr. Explores visual elements of lifestyle through portraiture, food, and sense of place, using both ambient and applied lighting techniques.
279. COMMUNICATION ETHICS 3 cr . Ethical theories and their application to ethical issues in public, private and mediated communication; role of communication in expressing and realizing individual and social values. Use of case studies.
280. 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.
281. CAMPAIGN ISSUES AND IMAGES 3 cr . Offered in the fall of election years. Follows the communicative practices of the ongoing campaign. Each student focuses on one campaign to develop a critical understanding of the tactics used, images portrayed, and issues raised. Develops an understanding of political campaigns through the lens of political communication theory.
282. NARRATIVE AND STORYTELLING 3 cr . Role of narrative in everyday communication practices, from conversations to interviews to persuasive messages. Verbal and nonverbal narratives. Narrative across multiple genres and media.
283. NORTH AMERICAN THEATRE 3 cr. Examines theatre in the United States, Canada, and Mexico, each of which was a colony of one or more European powers. Examines how theatre in North America found an identity of its own, advocated social change in the pursuit of a more perfect republic and democracy, and-in its popular mode-challenged elite forms of theatre. Studies the American musical, the Quebeçois theatre movement of Canada, Mayan performance both in colonial Mexico and in modern Mexican theatre, immigrant theatre, vaudeville and burlesque, and the avant garde.
284. DESIGN FOR THE STAGE 3 cr. Prerequisite: COMM 233. Designed to teach and practice the art of visual design, its process, and the power of a visual message that results from collaboration of the director and designers and that audiences can interpret and synthesize. Students are required to design sets and costumes for three different types of production and present in front of peers.
285. DIRECTING FOR THE STAGE 3 cr. Prerequisite: COMM 220 or COMM 221 or CO 280 or CO 285 , or permission from the chair after consultation with the instructor. Practice and theory of stage directing, scene staging, production research, history and theories of directing.
286. DOCUMENTARY 3 cr. Introduction to documentary forms and how these forms variously attempt to represent the world. Documentary cinema from its beginnings in the 1920s through the present day, concentrating primarily on U.S. filmmakers. Film analysis and proposal-writing for a documentary film.
287. AMERICAN FILM 3 cr. Examines American Hollywood filmmaking as an art form, a business, and a shaper of culture. Identifies film techniques and traditional stories. Explores the language of film and how film communicates. In-depth examination of how films are constructed (lighting, editing, sound, etc.) and how specific filmmaking techniques create specific audience responses. Film technique, film structure (narrative structure), and how specific films have shaped American culture in the last 100 years.
288. INTERNATIONAL FILM 3 cr. Survey of world cinema from 1893 to the present. Movies as a business, a social phenomenon, a series of technological innovations, and an art form. How meaning in films is conditioned by the uses of camera, editing, lighting, sound, and acting. Impact of technological developments on film production, the influence of culture on storytelling, the importance of genre and the legacy of individual "auteurs" (such as Truffaut and Kurosawa) throughout the history of cinema and various film theories.
289. WRITING SCREENPLAYS 3 cr. Prerequisite: permission of instructor. The art and craft of screenwriting and the creation of a screenplay. Basics of writing a script, including motion picture structure, character development, plotting, and dialogue writing. Students will also learn the correct screenwriting format and how motion pictures are written, filmed, and edited as well as the philosophy and business practices of the screenwriting profession.
290. AUDIO PRODUCTION 3 cr. Basic theory, tools, techniques, and aesthetics of effective audio production through lecture, readings, and hands-on production of seven audio project assignments.
291. WORKING IN SPORTS MEDIA 3 cr. Prerequisite: COMM 250 or COMM 225. Brief history of sports broadcasting; practical skills in covering sports on the field, on the air, and online. Use of the Klein TV Studio, WJCU radio, and the Internet for live event coverage, play by play, color commentary, and filming at sports events. Students must be able to attend events on weekends.
292. 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.
293. DIVERSITY, STEREOTYPES, \& THE MASS 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.
294. WOMEN IN MASS MEDIA 3 cr. Key issues and theoretical approaches in the study of women and media. Representations of women in media as well as the work of women in the industry. Analysis of how the media create and challenge stereotypes. History of women's contributions to the development of media, particularly the discussion of social issues through journalism, television, and film. How media shape attitudes and identities.
295. PHOTOJOURNALISM 3 cr. Prerequisite: COMM 250 or CO 225 or permission of instructor. The role of the photographer as communicator and as member of an editorial team at news organizations 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.
296. INVESTIGATIVE REPORTING 3 cr. Prerequisite: COMM 250 or CO 225. Major investigative and explanatory journalism projects using online research, databases, original public records, and information-gathering interviews.
297. SOCIAL ISSUES IN JOURNALISM 3 cr. Prerequisite: COMM 250 or CO 225. How journalists research and communicate about social issues and public policy on those issues; takes a critical approach to how the mass media cover social issues. Topics chosen by students can include public health, the environment, poverty, immigration, religion, disabilities, food and nutrition, gender and race.
298. HEALTH WRITING 3 cr. Prerequisites: COMM 250 or CO 225, EN 125, and a science course. Investigation of public health and medical issues and verification of facts using documents, online research, and in-person interviews with scientific and medical experts tactics for writing for the general public. Strategies of risk communication.
299. MEDIA WRITING 3 cr. Prerequisite: COMM 250 or COMM 270 or CO 225 or CO 315. Analysis and writing of communications for various media. Emphasis on developing critical thinking and other skills required to craft and evaluate messages across communication channels. Focus on coherent, relevant, and engaging storytelling and clear, concise writing. Emphasis on understanding how communication goals, audiences, and the medium influence message creation.
300. HOW WE LIVE: UNDERSTANDING CONSUMERS 3 cr. Prerequisite: COMM 270 or CO 315. Exploration of methodologies for defining and reaching audiences. Demographics, psychographics, primary and secondary research, survey design, focus groups, benchmark research (pre- and post-campaign assessment), and one-on-one interviews, audience profiles, creation of design and execution of methodology, and composition of an executive summary.
301. WEB \& INTERACTIVE DESIGN 3 cr. Prerequisite: COMM 140. Study of the thought processes and aesthetics involved in the production of visual and interactive media from initial concept through development to actual construction. Encourages hands-on design and development skills using the latest industry-leading tools. Special emphasis on the creation of real-world, portfolio-quality projects for print, the Web, and other communication channels.
302. BRANDING 3 cr. Prerequisite: COMM 370 or CO 360. Blend of the study of major brands and research on branding to evaluate brand equity, personality, and identity. Fundamentals of launching and revitalizing a brand, creating brand resonance, and co-branding. Analysis of brands and craft brand strategies.
303. SPORTS PROMOTION \& FAN ENGAGEMENT 3 cr. Essentials of promotion within the multibillion-dollar sports industry. Communication theories and practices, strategies for developing brand awareness, development of fan base, especially through social media, and increasing overall presence.
304. HEALTH CAMPAIGNS 3 cr. Prerequisites: COMM 270 and COMM 274. Examines the skills and tools needed to develop effective health campaigns. Ways in which information seeking and information use influence health behaviors, as well as how public understanding of science and health information is shaped. Theory-based health campaigns and researching, planning, and evaluating health campaigns.
305. COMMUNICATION IN HEALTH SETTINGS 3 cr. Prerequisite: COMM 274. Investigates the interpersonal communication processes that influence and are influenced by health and health contexts. Study of physician and patient communication, family and friend communication, and everyday interpersonal communication as they relate to health care and the management of health issues. Role of interpersonal communication in health, health beliefs and behaviors, and healthcare management.
306. CRISIS COMMUNICATION 3 cr. Prerequisite: COMM 270. Examines the topic of crisis communication from a theoretical, ethical, and applied perspective, following the communication management process through the stages of precrisis, crisis, and post-crisis. Identifying different types of crises, and appropriate responses using traditional and new media choices effectively. Discussion topics include health, environment, advocacy, and technology. Creation of a campaign responding to a social-cultural issue from an integrated marketing communication perspective.
307. INTERNSHIP 2 cr. Prerequisites: instructor permission; junior standing; and declared COMM major. Supervised experiential learning in a position related to the student's intended area of study. May be repeated twice. Does not fulfill requirements for the Communication major or minor.

## 399. SEMINAR/SPECIAL TOPICS IN COMMUNICATION 1-3 cr.

Responsibility for CO 399 rotates among department faculty, a new area of study specified by each. Topic announced in the semester course schedule.
410. COMMUNICATION ANALYSIS 3 cr. Prerequisites: EN 125, and COMM 125, COMM 130, COMM 140, and COMM 306. Capstone analyzing, interpreting, and critiquing persuasive messages from a wide variety of contexts, including speeches, advertisements, novels, films, music, and campaigns. Students will use persuasive theories and methods to critique and analyze a persuasive act.
411. PERSUASION 3 cr. In-depth study of theories of persuasion, and a variety of case studies designed to apply these theories to the real world. Critical and ethical analysis of persuasion in contemporary culture.
420. INTERNATIONAL THEATRE 3 cr . Exploration of theatre outside of the U.S. Tradition, culture, and ideas that aid in understanding today's practices. Focus on the artists and plays throughout the centuries that still fascinate audiences today. Topics vary among theatre in Europe, Asia, and Latin America, whether indigenous, classical, modern, or postmodern.
422. THEATRE CAPSTONE 3 cr. Prerequisites: prior participation in theatre productions; permission of chair in consultation with the instructor. The student must participate in a production by directing, designing, stage managing, or acting in a major role, as determined by the instructor. Also involves a writing and research component.
440. ADVANCED VIDEO PRODUCTION 3 cr. Prerequisite: COMM 341 or CO 319. Philosophy, applied technique, and aesthetics of motion picture editing as appropriate for entertainment, advertising, and journalistic single/multicamera formats. Students will gain command of the use of non-linear digital editing tools, working with a variety of raw footage from relevant genres.
450. COMMUNICATION LAW 3 cr. Survey of major topics in U.S. communication law that are essential knowledge for all communication professionals, who must be aware of the risk of lawsuits as well as their constitutional and legal rights. Evolution of interpretation of the First Amendment through landmark Supreme Court decisions. Defamation (libel and slander), broadcast and internet regulation, commercial speech, copyright, privacy rights, public access to information and places, the rights of student media, and international communication law.

## 470. MANAGING NEW MEDIA: CAMPAIGNS \& ANALYTICS 3 cr.

Management of a brand on digital media, creation of digital media strategy, role of digital media in IMC campaigns. Development of digital media marketing
techniques, strategies for creating content and engaging with consumers, integration of digital media into overall marketing and communication plans, measurement of program results to achieve organizational goals. Critical evaluation of the effectiveness of digital media campaigns.
471. CONSULTING, TRAINING AND DEVELOPMENT 3 cr . Role of a consultant, models for consulting, "needs assessment" development and training methods in various corporate, government, and nonprofit settings.
472. INTEGRATED MARKETING CAMPAIGNS 3 cr. Prerequisites: COMM 370 and COMM 372 or CO 407 and 415; corequisite: COMM 472L. 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.

472L. INTEGRATED MARKETING CAMPAIGNS LAB 0 cr. Corequisite: COMM 472.
473. NONPROFIT MARKETING 3 cr. Exploration of traditional aspects of marketing and how they apply to nonprofit organizations. Examination of how nonprofit marketing may at times be similar to the for-profit sector as well as the unique challenges and opportunities nonprofit marketers face. Foundational concepts related to nonprofit organizations that influence marketing decisions in the nonprofit sector.
474. EVENT PLANNING 3 cr. Prerequisites: COMM 370 and COMM 372 or CO 360 and CO 407. Theory and practice of the communicative strategies and behaviors associated with effective meetings, conferences, and special events. Draws on theoretical areas of communication to study effective planning and project management, and provides opportunities to integrate theory and application.
475. EVENT PLANNING: SPORTING EVENTS 3 cr. Prerequisite: SPS 408. Theory and practice of the communicative strategies and behaviors associated with developing sporting events such as tournaments, races, championships, and other special events. Draws on theoretical areas of communication to study effective planning and project management, and provides opportunities to integrate theory and application.
495. SENIOR CAPSTONE IN COMMUNICATION 3 cr. Students complete a comprehensive communication project or research study under faculty direction and develop an online portfolio. Based on knowledge and skills acquired through education and experience as a communication major. Includes presentation.
496. DIGITAL MEDIA CAPSTONE 3 cr . Required of all majors in the Digital Media concentration in their senior year. Students complete a comprehensive digital media production under faculty direction.

## 497. IMC CAPSTONE: ORGANIZATIONAL COMMUNICATION 3 cr .

Required of all majors in IMC concentration. Exploration of management/ communication theory lenses for examining communication issues such as socialization, decision-making, conflict, change, creativity, diversity, reputation management, and organizational culture in corporate, non-profit, and government settings. Students will develop an awareness of their leadership style and conduct an original research project on a communication issue for an organization.
498. INTERNSHIP 3-6 cr. Prerequisites: senior standing; 2.5 GPA ; COMM majors; permission of internship director. Supervised and directed experiential learning in a position relevant to a major sequence of study. No more than 3 credits may be applied toward completion of the major.
499. INDEPENDENT STUDY 1-3 cr. Prerequisites: declared COMM major; permission of instructor and chair. Particular problem in communication examined in depth. Final paper and oral examination before a committee. Projects must be approved prior to registration.


# Computer Science (CS) 

Professors: P. L. Shick (Chair), M. Kirschenbaum, D. W. Palmer, L. M. Seiter; Assistant Professor: E. Manilich

## 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 Science with Healthcare Technology. They 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 majors diverge for the upper-level courses, with Computer Science majors acquiring a strong understanding of how and why technology works, while Computer Science with Healthcare Technology majors augment a foundation in computer science principles and practices with technology and information processing from the healthcare field. The department also offers mathematics (MT) and data science (DATA) programs that are described in separate sections.

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 B.S. 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 Science with Healthcare Technology leading to the B.S. is a complete degree in computer science with additional and focused course work that provides foundational knowledge for the technological side of the healthcare field. Students in this program have all the professional opportunities of those in the Computer Science major with additional preparation, insight, and hands-on experience for a healthcare-related career. Additionally, because of the intertwined nature of technology and medicine, this program can also provide a valuable foundation for the next generation of doctors and medical professionals.

## Program Learning Goals in Computer Science.

Students will:

1. Develop problem-solving and critical thinking skills and use these skills to solve complex computing problems.
2. Acquire a working knowledge of the theoretical foundations of computer science.
3. Acquire both a working knowledge and a theoretical understanding of the professional practice and formal methodologies of development of large software projects.
4. Acquire communication and interpersonal skills necessary to perform effectively in a technical environment.

## Program Learning Goals in Computer Science with Healthcare Technology.

Students will:

1. Achieve the learning goals for the Computer Science major.
2. Acquire both academic and hands-on knowledge and experience with standards, protocols, and practices of the healthcare technology field.
3. Gain HIPPA certification.

## Major and Minor Requirements

Major in Computer Science: 46 hours. CS 125, 128, 128L, 150, 225, 228, 242, 270, $328,470,475$; MT 142; four additional CS courses at or above the 300 level.

Major in Computer Science with Healthcare Technology: 46 hours. CS $125,128,128 \mathrm{~L}, 150,225,228,242,270,312,328,470 \mathrm{HC}, 475 \mathrm{HC}, 476,478$; MT 142; one additional CS course at or above the 300 level. Note: Students must also complete HIPAA certification.

Minor in Computer Science: 22 hours. CS 125, 128, 128L, 150, 225, 228; one additional CS course at or above the 200 level; MT 142.

Minor in Computer Science with Healthcare Technology: 22 hours. CS 125, 128, 128L, 150, 225, 228, 312, 476. Note: Students must also complete HIPAA certification.
125. INTRODUCTION TO WEB DESIGN AND IMAGE PROCESSING 3 cr. Principles of website design and creation. Introduction to HTML, cascading style sheets, templates, image processing, and animation. Introduction to Visual Studio, ASP.Net, Visual Basic. Students will create their own websites.

## 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 hands-on 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.150. DATABASE SYSTEMS (DATA 150) 3 cr . Introduction to relational database design and implementation. Topics include database systems concepts and architectures, structure query language (SQL), entity relationship (ER) modeling, relational database design, functional dependencies, and normalization.
151. ADVANCED WEB DESIGN 3 cr. Prerequisites: CS 125, 128; prerequisite/ corequisite: CS/DATA 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. Continuation of CS 128 emphasizing the benefits of objectoriented languages: modularity, adaptability, and extensibility. Object-oriented programming concepts include objects, classes, methods, constructors, message passing, interfaces, inheritance, and polymorphism. Note: A grade of C or higher in CS 228 is required to register for any course that has CS 228 as a prerequisite.
242. MODELS OF COMPUTATION 3 cr. Prerequisites: CS 228, MT 142. Fundamental concepts in automata theory and formal languages, including finite automation, regular expression, pushdown automaton, context-free grammar, and Turing machine. Applications of automata in current programming languages.
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 each of which 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. Prerequisite: permission of chair and faculty member. Independent study under the supervision of a faculty member.
307. BIOINFORMATICS (DATA 307) 3 cr. Prerequisite: CS 228 or DATA 200. 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 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.
322. BIG DATA ANALYTICS (DATA 322) 3 cr. Prerequisites: CS/DATA 150 and either CS 228 or DATA 200. What is "Big Data?" Data mining algorithms, machine learning algorithms. Emphasis on real analyses being performed every day by businesses, governments, and online social networks.
328. ADVANCED PROGRAMMING 3 cr. Prerequisite/corequisite: CS 242. Advanced object-oriented programming: exceptions, threads, synchronization; Data Structures/Collection API's. Introduction to algorithms and analysis of algorithms. Graphical User Interface APIs.
340. DATA VISUALIZATION (DATA 340) 3 cr. Prerequisite: CS 228 or DATA 200. Introduction to basic data visualization techniques. Discussion of different techniques to view data, and analysis of classic data representations. Students will use advanced tools for generating and exploring, static and dynamic visual representation of very large datasets.
350. ADVANCED DATABASE SYSTEMS (DATA 350) 3 cr. Prerequisites: CS/DATA 150 and either CS 228 or DATA 200. Alternative data models and advanced database techniques, Big data support, Web-DBMS integration technology, data-warehousing and data-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. Investigation of emerging programming technologies and paradigms.
399. INDEPENDENT STUDY IN COMPUTER SCIENCE 1-4 cr. Prerequisite: 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; threading/synchronization as well as socket programming; client/server model.
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 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 use their skills, ingenuity, and research abilities to address various issues and deliver a working, useful system. Traditional or Agile development methodologies.

## 470HC. SOFTWARE ENGINEERING HEALTHCARE PROJECT 3 cr .

Prerequisites: senior standing in the Healthcare Technology major, CS 270, CS 312. Students will develop a large software project related to Healthcare IT using the same methodologies and techniques as 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 3 cr. Prerequisites: participation in the Healthcare Technology major, 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 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 how to use them together to build larger, more maintainable programs.
478. HEALTHCARE TECHNICAL INTERNSHIP 3 cr. Prerequisites: senior standing in the Healthcare Technology major, CS 470HC, and permission of department chair. Highly individualized, culminating experience for students in this major. Focuses on an information technology-related challenge that has been designed and approved by the MT/CS faculty and a healthcare professional.
479. HEALTHCARE MENTORING INTERNSHIP 3 cr. Prerequisite: CS 478. This course is by invitation only. A student who excels in a CS 478 internship is provided the opportunity by the sponsoring organization to accept a second internship in the senior year. The student will serve as a mentor to the other students in CS 478 at the same institution, sharing insight and experience from his or her previous internship.
480. SPECIAL TOPICS cr. TBA. Reading, reports, and 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.

# Data Science (DATA) 

Professors: P. L. Shick (Chair), B. Foreman, M. Kirschenbaum, D. W. Palmer, L. Seiter; Assistant Professors: E. Manilich, W. Marget, R. Fang

## Major Programs

The Department of Mathematics and Computer Science offers a bachelor of science in Data Science. The department also offers Mathematics (MT), Computer Science (CS), and Computer Science with Healthcare Technology (CS HCT) programs that are described in separate sections.

Data science is an emerging academic discipline, a response to an increasing demand for people who are able to understand and analyze data. Data science provides powerful approaches for transforming large and complex data into information, knowledge, and intelligent decisions. John Carroll University's Data Science program utilizes an interdisciplinary approach with a focus on statistics, computer science, and mathematics applied to a specific discipline such as communications, digital humanities, entrepreneurship, exercise science, biology, physics, political science, psychology, and sociology. The major in Data Science leading to the B.S. prepares students to explore the complex relationships between data, technology, and society. Data is everywhere, so data science skills are increasingly critical in almost every discipline. Data science careers span the spectrum of possibilities from working for national companies with large data analytics departments to founding entrepreneurial start-up companies at the frontier of future technology, while filling critical roles in all fields, including medicine, business, arts and entertainment, sports, government, law, manufacturing, and research.

## Program Learning Goals in Data Science.

Students will:

1. Data Acquisition: Collect, store, preserve, manage, and share data in a distributed environment through practical, hands-on experience with programming languages and big data tools.
2. Problem Exploration: Develop problem-solving skills through experiences that foster computational and data analytic thinking.
3. Analysis: Develop an in-depth understanding of the key technologies in data science: data mining, machine learning, visualization techniques, predictive modeling, and statistics.
4. Domain knowledge: Experience discipline-specific data use cases in order to solve real-world problems of high complexity.
5. Interpretation: Learn methods for effective data communication and visualization, and demonstrate their use in data representation.
6. Social Value: Explore social and ethical implications of the use of data and technology.

## Major and Minor Requirements

Major in Data Science: $46+$ hours. CS 128, 128L; DATA 100, 122, 150, 200, 260, 470; EN 300; MT 288; 4 approved courses selected from one area of specialization; 2 electives selected from DATA 307, 322, 340, 350, 421, 422, 424.

Minor in Data Science: 22 hours. CS 128, 128L; DATA 100, 122, 150, 200. 2 electives selected from DATA 260, 307, 322, 340, 350, 421, 422, 424.

| Communications | Digital Humanities | Entrepreneurship |
| :---: | :---: | :---: |
| - CO 201 | - EN 2xx | - ER 201 |
| - CO 225 | - EN 311 | - ER 301 |
| - CO 315 | - EN 312 | - ER 304 |
| - CO 325 | - EN 488 | - ER 305 |
| - CO 346 | - EN 498 | - ER 306 |
| - CO 360 |  | - ER 480 |
| - CO 455 |  |  |
| Exercise Science <br> - EPA 205/205L <br> - EPA 206/206L <br> - EPA 230 <br> - EPA 407 <br> - EPA 409 <br> - EPA 432 <br> - EPA 440 | Health Disparities \& Social Justice <br> - BL 155/157 <br> - BL 156/158 <br> - BL 240 <br> - BL 260 <br> - BL 399 <br> - PO 160 and PO 2xx Healthcare Access in Latin America | Physics <br> - PH 135/135L <br> - MT 135 <br> - PH 136/136L <br> - MT 136 |


| Political Science | Psychology |  |
| :---: | :---: | :---: |
| - PO 200 | - PS 100 | Criminology |
| - PO 203 | -PS 301/301L | - SC 101 |
| - PO 300/300L | - PS 401/401L | - SC 350 |
| - PO 319 | - PS 435 | - SC 351 |
| - PO 324 | - PS 499 | - SC 493 |
| - PO 337 |  | - SC 497 |
| - PO 399/498 |  |  |

100. INTRODUCTION TO DATA SCIENCE 3 cr. Introduces the key ideas, practices, and challenges of modern data analysis. Overview of the data, questions, and tools that data scientists deal with in their practice. Practical approaches to essential exploratory techniques, interactive data discovery, and predictive analytics, including basic techniques for collecting, cleaning, and sharing data. Hands-on activities will enable students to learn the practical toolkit of the data scientist.
101. ELEMENTARY STATISTICS (MT 122) 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. Methods are illustrated in the context of quantitative research, with applications in disciplines such as sports, psychology, and social and natural sciences. Use of appropriate statistical software.
102. DATABASE SYSTEMS (CS 150) 3 cr. Introduction to relational database design and implementation. Topics include database systems concepts and architectures, structure query language (SQL), entity relationship (ER) modeling, relational database design, functional dependencies, and normalization.
103. INTERMEDIATE DATA SCIENCE 3 cr. Prerequisites: DATA 100, DATA/MT 122 or equivalent, CS 128. Prerequisite or corequisite: DATA/CS 150. Provides a strong foundation in the field of data science and data analytics with a focus on computational approaches and experiential learning. Processes and practice of data science that are developed to analyze diverse sources of data, including data modeling, machine learning, and natural language processing; also, the fundamentals of inference in a practical approach. Students will build a portfolio of Big Data skills.
104. STATISTICS FOR BIOLOGICAL SCIENCES (MT 228) 3 cr. 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 a biology context.
105. PROBABILITY AND STATISTICS (MT 229) 3 cr. Prerequisite: MT 135. 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; exact, normal-theory, and simulation-based inference; use of appropriate statistical software. Methods are illustrated in the context of quantitative research, with applications in disciplines including sports, psychology, and social and natural sciences.
106. INTERMEDIATE STATISTICS (MT 223) 3 cr. Prerequisite: DATA/ MT 122 or MT 228 or MT 229 or EC 208. Power analysis, factorial and repeated measures analysis of variance, nonparametric procedures, contingency tables, introduction to multiple regression. Use of appropriate statistical software.
107. BIOINFORMATICS (CS 307) $\mathbf{3}$ cr. Prerequisite: CS 228 or DATA 200. 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 college-level biology. Topics may include gene sequence assembly, sequence alignment, phylogenetic tree inference, gene expression, and protein interaction networks.
108. BIG DATA ANALYTICS (CS 322) 3 cr. Prerequisites: DATA/CS 150 and either CS 228 or DATA 200. What is "Big Data?" Data mining algorithms, machine learning algorithms. Emphasis on real analyses being performed every day by businesses, governments, and online social networks.
109. DATA VISUALIZATION (CS 340) 3 cr. Prerequisite: CS 228 or DATA 200. Introduction to basic data visualization techniques. Discussion of different techniques to view data, and analysis of classic data representations. Students will use advanced tools for generating and exploring static and dynamic visual representations of very large datasets.
110. ADVANCED DATABASE SYSTEMS (CS 350) 3 cr. Prerequisites: DATA/ CS 150 and either CS 228 or DATA 200. Alternative data models and advanced database techniques. Big data support, Web-DBMS integration technology, datawarehousing and data-mining techniques, database security and optimization, and other advanced topics.
111. MATHEMATICAL STATISTICS (MT 421) 3 cr. Prerequisites: DATA/ MT 229, MT 233. Moment generating functions, transformations, properties of estimators, foundations of hypothesis tests, one- and two-factor analysis of variance, and nonparametric analyses.
112. APPLIED STATISTICS (MT 422) 3 cr. Prerequisites: DATA 260/MT 223. Two-factor analysis of variance; categorical data analysis, logistic regression, factor analysis, simulation, analysis of large datasets; use of appropriate statistical software.
113. APPLIED REGRESSION ANALYSIS (MT 424) 3 cr. Prerequisite: DATA 260/MT 223. Multiple linear regression, collinearity, model diagnostics, variable selection, nonlinear models; autocorrelation, time series, and forecasting; use of appropriate statistical software.
114. DATA SCIENCE PROJECTS 3 cr. Prerequisites: DATA 200, DATA 260/MT 223, MT 288, senior standing in the Data Science major, and permission of instructor. Simulation of the environment of the professional data scientist working in a team on a large data project for a real client. Students 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 usable data product.


## East Asian Studies (EA)

The East Asian Studies Program serves as a focal point for academic courses leading to an interdisciplinary major and minor in East Asian Studies. Intended to deepen students' knowledge and understanding of this important world region, the East Asian Studies Program also brings greater international awareness to the campus and community by sponsoring guest lectures, cultural performances, high school outreach, film series, study tours, and special events related to East Asia. For further information about East Asian Studies at John Carroll University, please contact the program via email at eas@jcu.edu or visit its website at www.jcu.edu/eas.

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:

- Peter Kvidera, Ph.D., Associate Professor of English
- Sokchea Lim, Ph.D., Assistant Professor of Economics
- Bo Liu, Ph.D., Associate Professor of Art History
- Xinxin Liu, Confucius Classroom Instructor in Chinese
- Susan Orpett Long, Ph.D., Professor of Anthropology
- Pamela A. Mason, Ph.D., Associate Dean for Social Sciences, Education, and Global Studies; Associate Professor of Political Science
- Malia McAndrew, Ph.D., Associate Professor of History
- Paul K. Nietupski, Ph.D., Professor of Theology and Religious Studies
- Martha Pereszlenyi-Pinter, Ph.D., Associate Professor of French
- Roger W. Purdy, Ph.D., Associate Professor of History
- Feng Zhan, Ph.D., Assistant Professor of Finance
- Jie Zhang, M.A., Associate Librarian


## Program Learning Goals in East Asian Studies.

Students will:

1. Demonstrate at least second-year language proficiency (ACTFL's intermediatemid) in an East Asian language.
2. Identify common elements of the East Asian region, as well as differences within the region based on society and culture.
3. Analyze an East Asian society from at least three disciplinary perspectives (including, but not limited to, anthropology, art history, economics, history, literature and the arts, political science, religious studies, and sociology).
4. Understand the role of artists, the arts, and the artistic impulse in society and recognize how history, politics, religion, philosophy, science, and technology influence art and how art influences history, politics, religion, philosophy, science, and technology.
5. Articulate the political, economic, and sociocultural relationships among East Asian nations and between East Asia and other regions.

## 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 100200 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. Four 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 on 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 East Asian Studies Language Minor, which emphasizes Chinese or Japanese language, or the East Asian Studies Interdisciplinary Minor, which provides a broader interdisciplinary approach to the study of East Asia, including one year of Chinese or Japanese language.

The minor consists of 24 credits, normally 8 courses, distributed as follows:

1. East Asian Studies Language Minor
a. Six courses in Chinese or Japanese language.
b. Two additional EAS-approved courses in different disciplines.

## 2. East Asian Studies Interdisciplinary Minor

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, semester long, 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 semesterlong 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 a 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 a 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 Popular Culture in Japan
- 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 OF 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.
200. 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 on the student's experience in the EAS major. Required to complete the major.


# Economics (EC) 

Professors: F. J. Navratil, T. J. Zlatoper, W. O. Simmons (Associate Dean); Associate Professors: L. R. Cima, L. N. Calkins, A. M. Welki (Chair), S. K. Kahai; Assistant Professor: S. Lim; Executive-in-Residence: A. Aveni

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, interestrate 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.

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.

## Major and Minor

Economics is considered one of the most flexible of all the potential fields of undergraduate study because 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). Moreover, a major in economics provides a comprehensive background 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 economicsregard the study of economics to be particularly beneficial because of its logical, ordered approach to problem solving.

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.

## Program Learning Goals in Economics.

Students will:

1. Knowledge of microeconomic theory, macroeconomic theory, and market failure, and the ability to apply them to domestic and global economic issues.
2. The skills necessary to identify and analyze the economic dimensions of individual, firm, and social problems.
3. The ability to use an economic way of thinking to identify solutions to problems that are unfamiliar.
4. The ability to recognize the limitations of proposed solutions to individual, firm, and social problems and situations.

## Major and Minor Requirements

Bachelor of Arts in Economics: 34 credit hours. EC 201-202, 210, 301, 302, 499, and 15 additional upper-division EC hours.

Required Support Courses: MT 130, or MT 135-136 for those interested in pursuing graduate work in economics or finance.

It is strongly recommended that B.A. students minor in business or take additional courses in the Boler School, especially finance or the year-long sequence in accounting. Additionally, students planning graduate work in economics should take EC 409 Mathematical Economics, EC 410 Econometrics, and a course in linear algebra.

Bachelor of Science in Economics: 62 credit hours.
Business Core: 41 hours, including EC 499 and MHR 461.
Major courses: 21 hours, including EC 301, 302, with 15 hours in upper-division economics in addition to EC courses required in the business core.

During senior year, all majors must take an economics comprehensive examination which counts for a portion of the EC 499 grade. Consult the department for details.

Students who seek to double major in economics and finance can use a finance class (with chair approval) as an economics elective. Economics majors who would like to double major with an area besides finance should speak to the chair of the economics department.

Professional Experience: Relevant professional work or volunteer experience is required prior to graduation. This requirement must be satisfied by completing BPD 490. See page 89.

Economics Minor: 18 hours. EC 201-202, 12 hours at the 300 or 400 level.

## 101. INTRODUCTION TO ECONOMIC PROBLEMS AND POLICIES 3 cr.

Survey of current socioeconomic issues and problems: market structure, costs and competition, international trade, environmental concerns, economic growth, financial panics, inflation, and unemployment. Uses basic economic concepts and analytical tools. 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 in both courses.
209. INTRODUCTION TO LINEAR REGRESSION 1 cr. Prerequisite: MT 223 or MT 228 or MT 229 or permission of chair. Simple regression analysis, bivariate correlation, multiple regression analysis, and time series analysis using regressionbased approaches.
210. BUSINESS ANALYTICS AND STATISTICS 4 cr. Descriptive statistics, probability and probability distributions, sampling, and sampling distributions, 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.
221. FUNDAMENTALS OF ECONOMICS 3 cr. Study of basic economic principles, with an emphasis on macroeconomics. Microeconomic topics include supply and demand analysis, and elasticity. Macroeconomic topics include measurement of macroeconomic activity, national income accounting, aggregate demand and aggregate supply, money, and fiscal and monetary policy. Does not satisfy degree requirements for the $E C$ major or the Boler core.
301. MICROECONOMICS 3 cr. Prerequisites: EC 201-202 and calculus (MT 130, MT 133-134, or MT 135), or permission of chair. 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 calculus (MT 130, MT 133-134, or MT 135), 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 201202. 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 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 interactions among market structure, firm behavior, and market outcomes. Topics include 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.
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 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 201202. Examines major world economic systems in theory and practice. Focuses on understanding 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 201202. 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 department 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 210; or permission of chair; EC 301, 302, and 409 recommended. 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 GPA 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 department guidelines established for such study.

## 499A. INDIVIDUAL RESEARCH PROJECT IN ECONOMICS I 0 cr.

Prerequisites: economics major; senior standing or permission of chair, B.S.E. students must have completed BPD 201, 202 and 301. The year-long sequence EC 499A and 499B is the capstone experience for the economics major. EC 499A represents the preliminary stages of an integrative senior seminar for all economics majors, and includes topic identification and development for the senior research project, and preparation for the economics comprehensive examination (MFT). 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 School Psychology (ED) 

Professors: K. A. Roskos, C. A. Rosemary (Co-Chair); Associate Professors: T. E. Kelly, J. E. Jenkins, M. G. Storz (Co-Chair), D. Shutkin, G. A. DiLisi, J. L. Rausch, T. Ford, R. A. Allen, A. Moses, Y. Shang, M. T. Connell, S.J.; Assistant Professor: L. M. Shoaf; Instructor: D. Reynolds

The department offers an undergraduate major in education. Students who successfully complete a teacher education program earn a bachelor of arts degree. (A bachelor of science degree is earned with an AYA concentration in the sciences.) The education major consists of the teacher education program, which is designed to prepare students to meet the standards for Ohio teacher licensure. It is accredited by the National Council for the Accreditation of Teacher Education (NCATE), approved by the Ohio Department of Higher Education (ODHE).

The teacher education program prepares candidates for careers in one of three teaching licensure areas, offered as three concentrations within the education major:

Early Childhood (EC), Pre-K to $3^{\text {rd }}$ grade and ages 3 through 8.
Middle Childhood (MC), $4^{\text {th }}$ grade to $9^{\text {th }}$ grade and ages 9 through 14.
Adolescent/Young Adult (AYA), $7^{\text {th }}$ grade to $12^{\text {th }}$ grade and ages 12 through 21. (For candidates in the AYA concentration, the academic subject area is the primary major, and Education is the secondary major.)

A unique aspect of the Teacher Education program is the professional development of pre-service candidates at John Carroll University. All candidates participate in a full academic year clinical experience in one school for both Pre-Student Teaching and Student Teaching. Pre-Student Teaching offers the opportunity to reflect, question, and continue with weekly experiences in one school that culminates in Student Teaching.

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. Fees for required program and state assessments are paid by the student.

All teacher licensure candidates must submit to fingerprinting and background checks by government investigative agencies each year of their course of study.

Note: Licensure programs are subject to change based on recommendations of external accrediting bodies, e.g., Specialized Professional Associations (SPAs), the ODHE, and NCATE.

Program coordinators, faculty, and administrative staff counsel all undergraduate students interested in education as a major and/or license, and students interested in obtaining licensure. Prospective education majors may be assigned an academic advisor in the Department of Education and School Psychology as their first-year/ sophomore academic advisor. Prospective students interested in AYA licensure continue to be advised by their major department, though they are expected to maintain close and continuous contact with their AYA education advisor and the program coordinator. 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. Advisement forms and the Teacher Education Handbook are available at http://sites.jcu.edu/education/.

## MISSON AND PROGRAM LEARNING GOALS

## Mission

The mission of the Department of Education and School Psychology 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.


## Program Learning Goals for Education and School Psychology

Contexts
I-1. Understands the central concepts, tools of inquiry, competing perspectives, and structure of the disciplines taught.

I-2. Recognizes the value of understanding the interests and cultural heritage of each student.

I-3. Plans instruction based on knowledge of subject matter, students, the community, and curriculum goals.

I-4. Creates a learning environment of respect and rapport.

Learner Development
II-5. Understands how children/youth develop and learn.
II-6. Provides learning opportunities that acknowledge and support the cognitive and social development of learners.

II-7. Understands how learners differ in their approaches to learning.
II-8. Demonstrates flexibility, responsiveness, and persistence in adapting to diverse learners.

Practice
III-9. Understands and uses a variety of instructional strategies; designs coherent instruction.

III-10. Creates a learning environment that encourages social interaction, active engagement, and self-motivation.

III-11. Uses knowledge of communication techniques to foster active inquiry, collaboration, and supportive interaction.

III-12. Understands and uses formative and summative assessment approaches and strategies.

Person
IV-13. Reflects on professional practices.
IV-14. Fosters relationships with colleagues, parents, and agencies in the larger community.

IV-15. Grows and develops professionally.

## Admission to Teacher Education

Interested students must apply to 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 ED 253 at the time of application for admission. Students may not take any additional course work beyond ED 100, ED 200 (for EC), ED 202 (for MC/AYA), and ED 253 unless they are formally admitted to teacher education. Those accepted into the AYA licensure program must also be subsequently accepted into a departmental major, e.g., history, English, mathematics, chemistry.

For undergraduates, Teacher Education 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.

Applicants for Teacher Education are evaluated by faculty and Teacher Education program coordinators on the basis of the admission criteria. The department faculty approve all admissions to Teacher Education.

## Admission Criteria and Decisions:

Accepted-Student may begin or continue taking Education courses toward program completion. This classification is given if all of the listed criteria are met. Once accepted into the Teacher Education program, the student is called a candidate.

## Criteria

1. Academic Record
2.7 overall GPA
2.7 education GPA based on one or more of the following courses: ED 100,

ED 200, and possibly ED 253
2.7 content-area GPA for MC and AYA only
2. No or limited concerns regarding oral and written communication based on course performance (EN 125, CO 125, ED 100, ED 200, ED 253) and interview process.
3. No or limited concerns regarding dispositions for teaching based on instructor observations in courses and field experiences.
4. Successful criminal background check (i.e., Bureau for Criminal Investigation [BCI] and FBI).

Accepted Conditionally-Students may continue taking courses toward teacher licensure. This classification is given if one or more of the listed criteria apply.

## Criteria

1. Academic Record:
2.3-2.7 overall GPA
2.0-2.7 education GPA based on ED 100, ED 200, and possibly ED 253
2.0 - 2.7 content-area GPA for MC and AYA only
2. Some concerns regarding oral and written communication based on course performance (EN 125, CO 125, ED 100, ED 200, ED 253) and interview process.
3. Some concerns regarding dispositions for teaching based on instructor observations in courses and field experiences.

Note: Conditional acceptance may be given for up to two semesters, including the semester in which the student applies. Depending on the student's performance in meeting the conditional acceptance criteria, an extended timeframe for program completion or dismissal from the program may result.

Reject—Student is not eligible for admission to Teacher Education. This classification is given when:

1. Criterion 4 (BCI \& FBI check) is not met;
2. Criterion 1 (GPA) is not met, and either criterion 2 or 3 is not met.

## Appeal Process

Due process is available to applicants who wish to appeal their classification. First, applicants should discuss the matter with their advisor. After this discussion, if applicants wish to pursue an appeal, they should do so in writing to the Teacher Education Program coordinators within thirty (30) days of notification of classification. If further action is required, an appeal may be made to the department chair.

## Grade Policy

1. A grade of C or higher is required in all education courses. A grade of C - or lower requires repeating the course, and the applicant should schedule a meeting with the advisor or Teacher Education Program coordinators to discuss progress in the program.
2. A grade of C- or lower in a course in the teaching field will be reviewed by the Teacher Education coordinators and the department chair to determine an appropriate course of action.
3. A minimum GPA of 2.7 is required throughout the program for the overall GPA, education GPA, and content areas.
4. Early Childhood candidates must receive grades of C or higher in all curriculumcontent course work for licensure, e.g., AR 171, MT 175, MT 176, and ED 356.

## Major Requirements

The ED major includes course work in professional and pedagogical studies; curriculum and content; and the professional year. Many of the University Core courses may also fulfill program licensure requirements. Professional and pedagogical studies provide a planned sequence of courses that develop knowledge about education. A minimum of two-thirds of the credit hours in professional education studies must be earned at John Carroll University. The curriculum and content courses prepare pre-service teachers for their specific licensure area.
Professional and Pedagogical StudiesProfessional and pedagogical studies provide a planned sequence of coursesthat develop knowledge about education, for example, its social and historicalfoundations, and foster understanding and use of the principles of effective teaching.The following courses are common to all licensure areas (EC, MC, and AYA):
ED 100 Introduction to Education ..... 3 cr.
ED 253 School and Society ..... 3 cr.
ED 255 Literacy across the Curriculum ..... 3 cr.
ED 350 Multicultural Education in a Pluralistic Society ..... 3 cr.
ED 386 Educational Technology ..... 3 cr .
ED 405 Seminar in Teaching ..... 3 cr .
ED 415 Educational Procedures for the Exceptional Child ..... 3 cr.
ED 444 Student Teaching Internship ..... 9 cr.
Early Childhood (EC) Specific Professional and Pedagogical Studies and Curriculum and ContentThe Early Childhood program develops expertise in working with children fromages 3 through 8 and pre-kindergarten through grade three. Candidates whoearn an Early Childhood License may take the appropriate course work and state-mandated exams to earn the Early Childhood (4/5) Generalist Endorsement.
Specific Professional and Pedagogical Studies required for Early Childhood Education
ED 200 The Young Child: Development from Birth to Age 8 ..... 3 cr.
ED 201 Learning, Assessment, and Individual Differences. ..... 3 cr.
ED 224 Educating and Caring for Young Children. ..... 3 cr.
ED 225 Assessment of Young Children and Their Families ..... 3 cr.
ED 325 Developmentally Appropriate Curriculum and Methods ..... 3 cr .
ED 331 Integrated Early Childhood Methods I: STEM ..... 3 cr .
ED 332 Integrated Early Childhood Methods II: Social Studies. ..... 2 cr .
ED 333 Integrated Early Childhood Methods III: Movement and the Arts1 cr.2 cr .
ED 334L Integrated Methods Clinic Lab ..... 0 cr.
ED 355 Language Study and Phonics . . . . . . . . . . . . . . . . . . . . 3 cr.
ED 456 Reading Assessment and Intervention . . . . . . . . . . . . . . . 3 cr.
ED 457 Methods in Reading Education . . . . . . . . . . . . . . . . . . . 3 cr.

## Early Childhood Curriculum \& Content (Licensure requirements) (16 credit hours)

The curriculum and content courses of the Early Childhood License prepare preservice 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 175 Foundation of Elementary Mathematics . . . . . . . . . . . . . . 3 cr.
AR 171/AR 171L Interdisciplinary Science . . . . . . . . . . . . . . . . . 3 cr.
ED 356 Children’s Literature . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
MT 176 Topics in Early Childhood Mathematics . . . . . . . . . . . . . . 4 cr.

## Early Childhood (3/5) Generalist Endorsement for Early Childhood Candidates and Teachers (9 credit hours) and field component

ED 414 Middle School Education Philosophy and Instruction . . . . 3 cr.
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.

Middle Childhood (MC) Specific Professional and Pedagogical Studies and Curriculum and Content

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.

## Specific Professional and Pedagogical Studies required for Middle Childhood Education

ED 202 Adolescent and Young Adult: Learning and Development ..... 3 cr.
ED 301 Educational Assessment ..... 3 cr.
ED 330 Middle Childhood Education Philosophy and Instruction. ..... 3 cr.
ED 355 Language Study and Phonics ..... 3 cr.
ED 424 Middle Childhood Curriculum and Content Methods ..... 4 cr.
ED 424L Middle Childhood Curriculum and Content Methods Practicum... 0 cr.
ED 456 Reading Assessment and Intervention ..... 3 cr.
ED 457 Methods in Reading Education ..... 3 cr.

## Middle Childhood Curriculum \& Content (Licensure requirements) (2 curriculum content areas; number of credit hours varies by discipline)

The curriculum and content courses of the Middle Childhood License prepare preservice 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 33-36 credit hours of specified course work in EN and CO). Mathematics (ED 424 plus 22-24 credit hours of specified course work in MT and CS). Science (ED 424 plus 20 credit hours of specified course work in BL, CH, and PH). Social Studies (ED 424 plus 24 credit hours of specified 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 and Adolescent/Young Adult Licensure.
2. 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 both student teaching, and the Middle Childhood and Adolescent/Young Adult Licensure.
3. Specific course work for each of the content areas may be found on the department's website.

## Adolescent/Young Adult (AYA) Specific Professional and Pedagogical Studies and Curriculum and Content

The Adolescent/Young Adult candidate prepares to work with adolescents from ages 12 through 21 and grades seven through twelve in a specific content area. ED majors enrolled in the AYA concentration also complete a major in their content area. The content area is the student's primary major, and the ED major with AYA concentration is the secondary major. Through completing the two majors the student prepares for the teaching content area (left column) and for licensure in teaching the AYA concentration (right column).

Candidates may be licensed in at least one of the following teaching fields:

## Primary Content Area Major

English (42 semester hrs.)
History ( 54 semester hrs.)
Mathematics Teaching ( 37 semester hrs.)
Chemistry major/Biology minor (86-90 semester hrs.)
Biology (72-78 semester hrs.)
Chemistry major/Physics minor (94-99
semester hrs.)
Physics (66 semester hrs.)
Chemistry (55-56 semester hrs.)
Biology major/Chemistry minor (86-90
semester hrs.)

Secondary ED Major/AYA Concentration Licensure Area<br>Integrated Language Arts<br>Integrated Social Studies<br>Integrated Math<br>Chemistry/Life Science<br>Life Science<br>Physical Science: Chemistry/Physics<br>Physics<br>Chemistry<br>Life Science/Chemistry

## Specific Professional and Pedagogical Studies required for Adolescent/ Young Adult Education

ED 202 Adolescent and Young Adult: Learning and Development ............. . 3 cr.
ED 301 Educational Assessment . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
ED 337 Adolescent Education Special Methods.................................... . 3 cr.
ED 427 Adolescent Education Special Topics. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 cr.
ED 427L Adolescent Education Special Topics Practicum ....................... . . 0 cr.

## Adolescent and Young Adult Curriculum \& Content (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 major in education and also must major in an academic subject area and may need to complete additional courses specific to the subject-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 subject area major, and/or AYA program requirements. These program requirements are subject to change based on the SPAs and Ohio Department of Education requirements.

## Note:

1. For the AYA license, an overall GPA of 2.7 or higher must be maintained in content-area course work.
2. For the AYA 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.

## Professional Year of Clinical Practice

The professional year is a unique aspect of the professional development of preservice candidates at John Carroll University. All candidates participate in a full academic-year clinical experience in one school for both pre-student teaching and student teaching. Pre-student teaching offers the opportunity to reflect, question, and continue with weekly classroom experiences that culminates in student teaching. As a requirement of the pre-student teaching and student teaching experiences, candidates meet on a regular basis in conference with the cooperating teacher and University supervisor to discuss teaching practice, receive feedback on areas for improvement, and continue to develop as a future educator. Successful completion of pre-student teaching is a pre-condition to student teaching.

## Pre-Student Teaching

The candidate applies two semesters before the projected student teaching semester. The pre-student teacher is assigned a cooperating teacher in one or more of his/ her intended licensure and content areas. In addition, a University supervisor is assigned to each pre-student teacher.

Candidates for pre-student teaching are evaluated by the TE program coordinator and the chair on the basis of the following criteria:

1. Course work
A. Minimum GPAs
2.7 overall
2.7 in education courses
2.7 in content areas for MC and AYA only
B. All course requirements have been completed or will be completed prior to student teaching.
2. Application to pre-student teaching, faculty interview, and resume.

## 3. No or limited concerns regarding dispositions for teaching based on instructor observations in courses and field experiences.

## Decisions: Accept; Accept Conditionally

1. Accepted - candidate may proceed with pre-student teaching
2. Accepted Conditionally - Candidate meets with TE Coordinators to develop an intervention plan.
All requirements in the intervention plan must be successfully met in order to proceed with student teaching.
Candidate may continue taking courses toward teacher licensure. The classification is given if one or more of the listed criteria apply.
i. Academic Record:
2.5-2.7 overall GPA
2.5 - 2.7 education GPA
2.5-2.7 content-area GPA for MC and AYA only
ii. Some concerns regarding oral and written communication based on course performance and interview process.
iii. Some concerns regarding dispositions for teaching based on instructor observations in courses and field experiences.

## Student Teaching

During the pre-student teaching semester, each candidate applies for student teaching. In planning programs, candidates and advisors should be aware that student teaching is more demanding than course work. Therefore, candidates should schedule no more than the required 12 hours of education credit during the professional semester, including student teaching.

Approval is granted by the Council on Teacher Education and requires that the candidate has:

1. The following minimum GPAs:
2.7 overall
2.7 in education courses
2.7 in teaching content area(s) for MC and AYA only
2. Successfully completed all clinical and field requirements for each course.
3. Completed all course requirements, education and teaching content area(s). Requests for one additional course beyond 12 hours during student teaching must be submitted in writing to the Council on Teacher Education as part of the application for student teaching.
4. Obtained a recommendation to continue into student teaching by the cooperating teacher and University supervisor.
5. Demonstrated teaching practices that provide evidence of the department's dispositions for the teaching profession.

## Note:

Admission to student teaching does not guarantee successful completion of the student teaching experience.

Upon successful completion of all program requirements, the student may apply for the bachelor's degree.

Upon successful completion of all program requirements and appropriate state licensure exams, the student may apply to the Ohio Department of Education for the Resident Educator License.

## Program Assessment Points

The program has several assessment points:

1. Admission to the University.
2. Application and acceptance into the Teacher Education program and approval by the faculty.
3. Ongoing evaluation of the candidate's course work, clinical and field experiences, and evidence of appropriate dispositions for the teaching profession based on instructor observations in courses and field experiences.
4. Application and acceptance into the Pre-Student Teaching semester, placement in an intensive field-based experience with University supervision in preparation for student teaching and approval by the TE coordinators and department chair.
5. Application and admission to the professional semester for Student Teaching, and approval by the Council on Teacher Education.
6. Exit assessments for program requirements.

Note: Fees for required program and state assessments are paid by the student.
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.
101. MAKING SENSE OF DATA 3 cr. Provides an introduction to applied statistical reasoning. Focuses on key ideas and principles of collection, display, and analysis of data in the examination of inquiry and evaluation processes used in education and behavioral sciences investigations.
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. May include fieldwork in diverse early childhood settings. Does not require admission into TE Programs.

## 201. LEARNING, ASSESSMENT, AND INDIVIDUAL DIFFERENCES

3 cr. Prerequisites: ED 100, 253, and formal admission to teacher education. Behavioral and cognitive learning theories, complex cognitive processes, motivation in learning and teaching. Classroom assessment, evaluation, and standardized testing. Consideration of student differences (i.e., culture, cognitive differences, and exceptionalities) and how such differences affect assessment, motivation, and learning.

## 202. THE ADOLESCENT AND YOUNG ADULT: LEARNING AND

DEVELOPMENT 3 cr. Focuses on topics, developmental theories, and educational strategies that apply to the age ranges of middle childhood, adolescent, and young adult. Topics include learning theories and neuropsychological development to help students learn to integrate research and theory into their teaching decisions. Field component allowing students to observe developmental theories in real-world settings.

## 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 the role of play in early childhood education. Fieldwork in diverse early childhood settings.

## 225. ASSESSMENT OF YOUNG CHILDREN AND FAMILIES 3 cr.

Prerequisites: ED 100, 253, and formal admission to teacher education and Early Childhood licensure. Creating, selecting, and using appropriate informal and formal assessments to understand and plan for young children's development and learning across domains. Discussion of techniques for collecting, analyzing, and using assessment information. Fieldwork in diverse early childhood settings.
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. Lab fee required.
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 assignment related to licensure and content area. Lab fee required.
301. EDUCATIONAL ASSESSMENT 3 cr. Prerequisites: ED 100, 253, and formal admission to teacher education. Principles of quality formative and summative classroom assessment. Examining differentiated assessments and feedback for different types of learners. Using data-based decision making and analyzing assessment data to examine instructional impact on student outcomes. Introduction to educational accountability, student growth models, and teacher evaluation systems.

## 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 as well as interactions with families. Further discussion of developmentally appropriate practice, particularly in effective planning and teaching strategies. Includes an introduction to integrated curriculum and an antibias education approach. Fieldwork in diverse early childhood settings. Lab fee required.

## 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, and 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: STEM 2 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 scientific, technological, engineering and mathematical 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 cr. Corequisite with ED 331 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: MOVEMENT

 AND THE ARTS 2 cr. Corequisite with ED 331 and 332, 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. Lab fee required.

334L. INTEGRATED METHODS CLINIC PRACTICUM 0 cr. Corequisite: ED 334. Early Childhood teacher candidates will be required to observe, practice, and reflect on approaches to appropriate curriculum and methods as part of prestudent teaching (PST) experience. PST requires one full day (or equivalent) per week in an early childhood classroom.
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 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 on strategies related to effective teaching and learning in each licensure content area. Additional emphasis on nurturing a risk-taking classroom community responsive to high standards of performance and to students with diverse backgrounds, abilities, and learning styles. Lab fee required.

## 350. MULTICULTUAL 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 issues of diversity and social justice.
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. For early childhood licensure program students. Critical analysis of various genres of literature for children focusing on multicultural literature and the relevance of literature across 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 field 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.

405A. EARLY CHILDHOOD EDUCATION SEMINAR 3 cr. Corequisites: ED 444A and admission to the professional semester. Integrates entire preservice preparation. Draws on past and current field experiences and course work to further explore topics related to early childhood education toward developing a coherent model of teaching children ages $3-8$. Lab fee required.

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. Lab fee required.

405C. ADOLESCENT EDUCATION SEMINAR 3 cr. Corequisites: ED 444C; 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. Lab fee required.

## 414. 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.

## 415. EDUCATION 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 content-area methods for planning, implementing, and integrating curriculum, assessing student achievement, and teaching to individual differences. Taken concurrently with pre-student teaching. Lab fee required.
424L. MIDDLE CHILDHOOD CURRICULUM AND CONTENT-SPECIFIC METHODS PRACTICUM 0 cr. Corequisite to ED 424. Middle Childhood teacher candidate will be required to observe, practice, and reflect on approaches to appropriate curriculum and methods as part of the pre-student teaching (PST) experience. The PST requires one full day (or equivalent) per week in a middle childhood classroom with time spent divided between the candidate's two areas of concentration.

424A. MIDDLE CHILDHOOD CURRICULUM AND CONTENT METHODS:
MATH/SCIENCE 3 cr. 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 Grades 4-5 Endorsement.

424B. MIDDLE CHILDHOOD CURRICULUM AND CONTENT METHODS: SOCIAL STUDIES AND LANGUAGE ARTS 3 cr. 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 campusbased course. For Early Childhood education candidates pursuing Grades 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 and PE licensure program students the semester preceding student teaching. Issues of conflict negotiation, social justice, curriculum development and assessment, and school reform as they relate to the secondary school setting. Lab fee required.

427L. ADOLESCENT SPECIAL TOPICS PRACTICUM 0 cr. Corequisite: ED 427. Adolescent Young Adult teacher candidates will be required to observe, practice and reflect on approaches to appropriate curriculum and methods as part of the pre-student teaching (PST) experience. The PST requires one full day (or equivalent) per week in a high school classroom.

444A. EARLY CHILDHOOD EDUCATION INTERNSHIP 9 cr. Corequisites: ED 405A and admission to the professional semester. Develops the special knowledge and competencies required of pre-K to $3^{\text {rd }}$-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 INTERNSHIP 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 EDUCATION INTERNSHIP 9 cr. Corequisites: ED 405C and admission to the professional semester. A full-day 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.
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 chair. In-depth study of a topic in workshop form or as an individual project under supervision.


## English

Professors: D. M. La Guardia, J. M. Colleran (Interim President), J. S. McBratney, P. J. Metres, III, G. B. Bilgere, D. J. Rosenthal (Chair); Associate Professors: B. K. Macaskill, M. Moroney (Assistant Provost), P. Kvidera, T. Pace, E. E. Butler, J. Stayer, S.J., J. E. Feerick; Writing Center Director: M. Soriano Young

Students of English share in an enriched experience of imaginative language in which they read literature and produce lively, critical, creative, and professional writing. English majors learn to sharpen their analytical and writing powers, while studying literary 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. An AP English score of four or higher allows students to test out of EN 125. Students needing intensive instruction in English composition are assigned to EN 120-121. All others are assigned to EN 125. Writing assistance is available to all students, for any writing assignment in any program, through the Writing Center.

Completion of first-year composition courses is normally a prerequisite for any 200or 300-level course. Refer to individual course listings for indicated prerequisites or special permissions.

## Program Learning Goals in English (Literature Track).

Students will:

1. Read texts with active, critical skill to form and articulate accomplished interpretations.
2. Produce written analyses of literary texts that demonstrate awareness of audience, organizational sophistication, and clear argumentation.
3. Recognize the employment and contextual use of the formal elements of language and genre.
4. Build oral communication skills by listening to others' ideas and articulating their own responses and questions clearly to situate themselves in the conversation.
5. Gain knowledge of cultural and historical contexts of Anglophone and translated literature that enhances their appreciation for the voices either within or marginalized by the texts.

## Program Learning Goals in English (Creative Writing Track).

Students will:

1. Read texts with active, critical skill to form and articulate accomplished interpretations.
2. Produce multiple drafts of original creative works that are honed and revised through the peer workshop process.
3. Produce written analyses of creative texts that demonstrate awareness of audience, artistic form, organizational sophistication, and clear argumentation.
4. Recognize the employment and contextual use of the formal elements of language and genre.
5. Build oral communication skills by listening to others' ideas and articulating their own responses and questions clearly to situate themselves in the conversation.
6. Gain knowledge of cultural and historical contexts of Anglophone and translated creative works that enhance their appreciation for the voices either within or marginalized by the texts.

## Program Learning Goals in English (Professional Writing Track).

Students will:

1. Read texts with active, critical skill to form and articulate accomplished interpretations.
2. Produce extended written analyses of literary texts, informed by research, that demonstrate awareness of audience, knowledge of critical theory, understanding of formal elements of language and genre, formulation of an original question or thesis within the field, sophisticated organization, and clear and persuasive argumentation.
3. Build oral communication skills by listening to others' ideas and articulating their own responses and questions clearly to situate themselves in a larger critical and/or theoretical conversation that begins in but extends beyond the classroom.
4. Gain knowledge of cultural and historical contexts of Anglophone and translated literature which enhances their appreciation for the voices either within or marginalized by the texts.
5. Produce major and minor written works, demonstrate an understanding of the genre-specific uses of style and form in creative writing, and acquire an ability to use the self- and peer-revision processes to identify holistic and line-specific opportunities for improving creative texts.

## Major and Minor Requirements

Major in English: 39 credit hours (excluding any course ordinarily designed for firstyear composition). Students may elect to complete one of three tracks: literature, creative writing, or professional writing.

## 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.)
a. 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 American Literature to 1900, or EN 372 American Literature: 1900 to the Present
3. Seven elective courses: 21 credit hours

Four electives must be at the 400 level. For 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, or successful completion of the professional development seminar series.
5. A capstone reflection essay and presentation to be evaluated by the English Department
6. 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.
Note: Students need to take either EN 301 or EN 303, which are prerequisites for the required EN 401.
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
4. EN 401 Advanced Poetry Workshop. Prerequisite: either EN 301 or EN 303.
5. A second course from the advanced level (prerequisite: EN 301 or EN 302):

EN 402 Advanced Fiction Workshop
EN 403 Special Topics in Advanced Writing Workshop
EN 404 Advanced Creative Non-Fiction Workshop
6. 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
EN 496 Framed Narratives: Novel and Cinema
7. One 400 -level literature course: 3 credit hours
8. One elective at any level: 3 credit hours
9. A portfolio including a capstone reflection essay and presentation to be evaluated by the English Department

Minor in English (Creative Writing Track): 18 credit hours (excluding first-year composition). 1) Two courses from EN 301, 302, 303, 304. Only EN 301 and 303 are prerequisites for the required EN 401. 2) EN 401. Prerequisite: either EN 301 or 303. 3) One more course from EN $402,403,404$. 4) One course in $20^{\text {th }}$-century literature, or a genre course, or another writing workshop. 5) 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 3 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 specializedlevel 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 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, including a capstone reflection essay and presentation, to be evaluated by 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 the 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.

Course requirements for the master of arts in English are published in the Graduate Studies Bulletin.

120-121. DEVELOPMENTAL WRITING I, II 3 cr. each. Designed to prepare students who would benefit from a two-course writing sequence. 120: Instruction in reading, writing, and argument skills essential for university-level work; detailed instruction in usage, mechanics, form, and structure appropriate to academic work; development of the student's writing process, with focus on planning, drafting, and revising. 121: Further focus on academic writing; introduction to finding, evaluating, and synthesizing print and online sources appropriate to academic writing, including a major research project.
125. SEMINAR ON ACADEMIC WRITING 3 cr. An introduction to universitylevel writing. Instruction in principles of rhetoric and eloquence, the essentials of academic argumentation, critical thinking, audience awareness, reflection, and revision. Instruction in finding, evaluating, and synthesizing print and online sources appropriate for academic writing, including a major research project. Instruction in form, structure, usage, and mechanics appropriate to academic work.

## 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.
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. Spans the silent and the sound eras and offers examples of film from Hollywood and beyond.
207. INTRODUCTION TO WORLD LITERATURE 3 cr . Survey of world literature, chiefly non-Western literary works. Historical coverage, generic focus, and/or theme may vary from iteration to iteration.
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 present.
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, tragedies, and romances.
231. BUILDING PEACE AFTER EMPIRE 3 cr. Multidisciplinary study of the dynamics of conflict and peacemaking in South Africa, Northern Ireland, and other sites through literature, history, and film. Focus on the historical and cultural roots and persistence of conflict; the contestedness of history; peacebuilding, conflict transformation, reconciliation, and social restoration; and artists' and writers' role in creating just peace.
240. DETECTIVE FICTION 3 cr. Prerequisite: EN 111, 112 or EN 103, 104 or EN 125 or EN 120, 121.
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.
275. ALCOHOL AND AMERICAN LITERATURE 3 cr. Prerequisites: EN 120 and EN 121; EN 125. Examination of American literature that thematizes images of alcohol or efforts to curb its abuse. Since alcohol affects all despite gender, race, sexual orientation, age, and class, students will read a diverse array of writers.
277. MAJOR AMERICAN WRITERS 3 cr. Strongly encouraged for all English majors. Critical survey of American authors and literary periods from the colonial era 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 coinhabit. 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 Enlightenment 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 on-site internship learning in a position relevant to a major sequence of study.
290. TUTORING WRITING ACROSS CONTEXTS 3 cr. Focuses 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.
292. SPECIAL TOPICS IN LITERATURE 3 cr. Introductory literature courses designed especially to meet Core requirements. Specific topics announced in advance.
293. ADVANCED WRITING 3 cr. Prerequisites: EN 120, 121; or EN 125; or placement out of EN 125 as determined by AP score. Fundamentals and practice in the essay and other non-fiction forms; emphasis on writing for specialized audiences.
294. INTRODUCTORY POETRY WRITING WORKSHOP 3 cr. Prerequisites: EN 120, 121; or EN 125; or placement out of EN 125 as determined by AP score. Fundamentals and practice of writing poetry.

## 302. INTRODUCTORY FICTION WRITING WORKSHOP 3 cr.

Prerequisites: EN 120, 121; or EN 125; or placement out of EN 125 as determined by AP score. Fundamentals and practice of writing short stories.

## 303. INTRODUCTORY CREATIVE WRITING WORKSHOP 3 cr.

Prerequisites: EN 120, 121; or EN 125; or placement out of EN 125 as determined by AP score. Fundamentals and practice of creative writing across genres.

## 304. INTRODUCTORY CREATIVE NON-FICTION WORKSHOP 3 cr .

Prerequisites: EN 120, 121; or EN 125; or placement out of EN 125 as determined by AP score. 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 AngloSaxons in the context of their early medieval milieu.
312. LATE MEDIEVAL LITERATURE 3 cr. Prerequisite: a 200 -level literature course. Survey of late medieval English literature, exploring its diversity from courtly romance to bawdy fabliau, including 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.

[^3]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 mid-eighteenth 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 to 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. AMERICAN LITERATURE TO 19003 cr. Prerequisite: a 200 -level literature course. Authors, genres, and works of American literature to 1900.
372. AMERICAN LITERATURE: 1900 TO PRESENT 3 cr. Prerequisite: a 200-level literature course. Authors, genres, and works of American literature from 1900 to the present.
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 <br> 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. ADVANCED CREATIVE WRITING 3 cr. Prerequisite: EN 301, 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, 300304, 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, 300304, 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, 300304, 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: medieval women, drama, the Pearl-Poet, or theories of translation of medieval text.
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 EIGHTEENTHCENTURY LITERATURE 3 cr.

Prerequisite: a 200-level literature course. Specialized study of issues, authors, and genres of literature of eighteenth-century England; specific topic announced in advance.
441. STUDIES IN ROMANTIC LITERATURE 3 cr. Prerequisite: a 200 -level literature course. Specialized study of Romantic literature; specific topic announced in advance.
443. KEATS 3 cr. Prerequisite: a 200 -level literature course. Examination of Keats's poetry.
445. BRITISH WOMEN WRITERS SINCE 18003 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.
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.
460. STUDIES IN MODERN BRITISH LITERATURE 3 cr. Prerequisite: a 200 -level literature course. Specialized study of 20thcentury 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 AMERICAN LITERATURE TO 19003 cr . Prerequisite: a 200-level literature course. Specialized study of American literature to 1900; specific topic announced in advance.
471. STUDIES IN AMERICAN LITERATURE: 1900 TO PRESENT 3 cr. Prerequisite: a 200-level literature course. Specialized study of American literature from 1900 to the present; 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.
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.
487. STUDIES IN CONTEMPORARY ANGLOPHONE LITERATURE 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. Prerequisite: a 200-level literature course. 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 and twenty-first centuries, 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 or writing. 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: J. J. Schmidt (Director), S. M. Kaye, N. Piracha, D. Mascotti; Associate Professors: M. P. Lynn, R. Grenci; Assistant Professors: S. B. Moore (Associate Dean), D. Winkel (Kahl Chair)

Specifically designed for students from all majors, the Entrepreneurship minor offers programs for business, STEM, and liberal arts students. By combining their major with entrepreneurship, students have the opportunity to study what excites them while learning how to generate ideas and develop their creativity, acquire hands-on experience working in teams on real-life problems in both business and social areas, build networks at John Carroll and in the community, and launch their ideas. A recent IBM poll of international CEOs identified creativity as the most important skill for now and in the future.

The program focuses on the development of an entrepreneurial mindset important whether starting one's own venture or working for someone else. People who can see opportunities, identify and develop solutions, and communicate them effectively are valuable in any field or organization.

Both U.S. News and World Report and Bloomberg Business Week have recognized the JCU entrepreneurship program as a "Top 25" program. All classes in the minor are held in the Burton D. Morgan Creativity and Entrepreneurship Classroom, a new space designed to enhance creativity. Students in the minor participate in several competitions both on and off campus to present their ideas to entrepreneurs. They can also use the Kahl Hatchery (one of six in the nation) to work on and develop their ideas. Mentorship of ideas is also available through a group of private business owners and faculty.

Faculty from the business, liberal arts, and STEM fields teach in the minor, offering a unique interdisciplinary opportunity. Required course work depends on whether a student majors in liberal arts, STEM, or business.

## Program Learning Goals in Entrepreneurship.

Students will:

1. Develop creativity/innovative thinking.
2. Develop critical thinking analysis.
3. Develop group collaborative skills.
4. Communicate skillfully in presenting entrepreneurship projects.
5. Demonstrate knowledge of the business model concept.

## Minor Requirement

The Liberal Arts and STEM track: ER 201, 301, 304, 305*, 306*, and 480, plus ER 115 or one approved quantitative course. (21 hours)
*Open only to majors in Liberal Arts and STEM.
The Business track: ER 201, 301 (or MHR 364), 304, 480; FN 312; MK 301; plus an approved quantitative course. (21 hours)
110. CREATIVE PROBLEM SOLVING 1 cr. Develops creative ability and its application to problem solving. Uses experiential exercises and the lenses of visual, digital, and musical arts to create and present projects/ideas.

## 115. QUANTITATIVE ANALYSIS IN SCIENCE, BUSINESS, AND

 HUMANITIES 3 cr. Uses quantitative data sets to identify and recognize problems, analyze options, draw inferences, make decisions, and effectively represent and communicate results. Cases drawn from science, business, humanities, politics, and education. Discussion of the ethical collection, use, and representation of data.120. POVERTY AND SOCIAL ENTREPRENEURSHIP 3 cr. Focuses on several major issues rooted in poverty and the difference between service and social entrepreneurship in working with these issues. Study and analysis of national and international social entrepreneurship projects related to poverty and the resources needed to implement a social enterprise.
121. CREATIVITY, INNOVATION, AND DEVELOPMENT 3 cr. Focuses on developing creativity by understanding the creative process and its relationship to the entrepreneurial mindset; also, improving the ability to generate ideas and recognize opportunities using different creative approaches in various settings and fields. Students work with a team to develop one of these ideas (social or business), identify an audience for it, and devise a way to communicate the idea to that audience.
122. INTRODUCTION TO ENTREPRENEURSHIP 3 cr. Prerequisite: ER 201. Continues the development of the entrepreneurial mindset initially presented in ER 201. Students develop multiple new products or services with the Business Model Canvas, taking them from concept to ready-to-launch. Requires individual and group presentations.
123. SOCIAL ENTREPRENEURSHIP 3 cr. Prerequisites: ER 201 and ER 301 or MHR 364. Applies the principles examined in ER 301 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 as a means to obtain social justice. Students work in teams to develop a social entrepreneurial project and then present it in oral and written form to entrepreneurs.
124. ACCOUNTING \& FINANCE FOR ENTREPRENEURS 3 cr. Prerequisite: ER 301. Introduces the principles of accounting for an entrepreneurial venture or idea. Focuses on the money needed to start a venture, revenue and expense forecasting, and sources of start-up money. Also covers business ownership options and issues, and ethical issues as they relate to entrepreneurial finance. (For Arts and Sciences Students)
125. ENTREPRENEURIAL MARKETING \& SALES 3 cr. Prerequisite: ER 301. Introduces marketing and sales concepts for entrepreneurial ventures, using real-life experiences and products to develop marketing and sales programs and to present them to entrepreneurs and business owners. Involves working in teams to develop marketing sales plans and the ability to present ideas in both oral and written form. (For Arts and Sciences Students)
126. 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). A capstone course that uses and expands upon the entrepreneurial mindset developed throughout the minor. Students complete a group project that involves the development of a new idea from conception to launch, the presentation of the idea to a group of entrepreneurs, and the chance to enter the IdeaLab competition. This requirement may be satisfied also through an approved internship.
127. INDEPENDENT STUDY 3 cr. Prerequisite: permission of director of the minor. Supervised independent study in entrepreneurship.


# Exercise Science and Sports Studies (ESSS) 

Associate Professors: K. M. Manning (Chair), G. S. Farnell; Assistant Professors: J. Nagle Zera, B. Turner: Administrator: B. C. Beigie

The majors in Exercise Science and Sports Studies (ESSS) are offered by the Department of Exercise Science and Sports Studies.

The Exercise Science and Sports Studies majors at John Carroll University are committed to the value and importance of physical activity in the lives of all people. To that end the program provides a comprehensive curriculum that encourages the development of knowledge, skills, and dispositions across the continuum of physical activity, including: 1) the PE 100-level physical activity curriculum; 2) the Exercise Science major; and 3) the Sports Studies major (see the Mike Cleary major in Sports Studies).

The major programs are grounded in broad-based curriculums that provide depth of knowledge in the scientific foundations of human movement and human behavior as preparation for graduate school and multiple career opportunities, as well as a breadth of knowledge within the humanities, social sciences, philosophy and religion, integrated into the majors' curriculum through the liberal arts Core. The Exercise Science and Sports Studies programs are grounded in the dignity of the individual and promote goals and outcomes related to that dignity as well as the maximum achievement of individual potential.

## Overview of the Majors

Exercise Science: A focus on the fitness, movement, motor, and sports skills of diverse populations. The Exercise Science major provides candidates with the knowledge, skills, dispositions, practicum and internship experiences to enter into careers in fitness, wellness, and allied health. Upon graduation, Exercise Science majors have entered graduate programs in such areas as exercise physiology, athletic training, nutrition, nursing, occupational therapy, physical therapy, chiropractor, strength and conditioning, and personal fitness. Candidates may need additional prerequisite course work depending on the graduate program selected. Candidates interested in a career in an allied health profession should register with the director of Pre-Health Professions.

Sports Studies: A focus on the administration, management, planning, and implementation of sports programs as well as sports-related cognate areas such as marketing, management, and communications. The Sports Studies major provides candidates with the knowledge, skills, dispositions, practicum and internship experiences within a course of study responsive to their specific area of interest related to careers in sports and athletic administration, and sports, fitness, and
wellness for diverse populations. For additional information on the Sports Studies major, see the Mike Cleary Major in Sports Studies.

Candidates interested in one of these majors are encouraged to meet with the program director to map out an inclusive four-year plan for graduation.

## The Unit Learning Outcomes ESSS propose to accomplish:

1. The development of knowledge, skills, and dispositions in the science of human movement and behavior through an integrated curriculum across content domains.
2. The development of expertise in the application of knowledge, skills, and dispositions within course, field, and internship experiences relevant to professional values and goals.
3. The development and implementation of communication skills across multiple domains, e.g., written, oral, and physical, that serve the primary role of conveying knowledge through implementation of practice, feedback, therapy, and ongoing support.
4. The development of problem-solving, critical thinking, and reflective practices indicative of a knowledge and evidence-based practice based on a framework of conceptual knowledge.
5. The development of appropriate professional behaviors as demonstrated through knowledge, skills, and dispositions within course work, internships, and professional opportunities.
6. The development of values-based, ethical behavior grounded in the liberal arts, observed through personal and professional behaviors, and representative of the Ignatian ideal of a leader in service to others.

## Program Learning Goals in Exercise Science.

Students will demonstrate:

1. Knowledge of the structure and function of the human body.
2. Knowledge of history, philosophy, mission, personal and professional identity.
3. Knowledge of lifespan development, developmental disabilities, and developmental regression.
4. Knowledge of movement skills, motor skills, fitness skills, and sports skills development and learning.
5. Knowledge of health, lifestyle wellness, lifestyle disabilities, and working with diverse populations.
6. Knowledge of organization, leadership, and planning for a variety of situations.
7. Knowledge of research and the appropriate use of research in papers and projects, and for problem-solving and critical thinking.
8. Knowledge in applied settings.
9. Knowledge related to moral and ethical behavior for a movement professional.

## Major and Minor Requirements

Major: Exercise Science. 49-50 hours: EPA 201, 205/205L, 206/206L, 208, $229,232,407,409,412,432,435,497$, plus 12 hours of electives selected from the Theory and Methods courses, or Sports Studies courses (with permission).

Minor: Exercise Science. 26 hours: EPA 205/205L, 206/206L, 208, 230, 407, 409, and two electives from the Theory and Methods courses.

Major: Sports Studies (see the Mike Cleary Major in Sports Studies).

## Requirements for Acceptance and Continuation as an Exercise Science major:

## Assessment of Academic Progress Includes:

## 1. Application Process

- A formal meeting with the Chair for Exercise Science and Sports Studies.
- An evaluation of academic course work.
- A statement of professional goals and expectations related to the chosen major and profession.
- The fulfillment of the following academic requirements:
- 2.0 or higher major GPA
- 2.0 or higher overall GPA


## 2. Acceptance Decisions

- Accept: Candidate may continue to take course work within the major course of study.
- Conditional Acceptance: Candidate may continue to take course work within the major course of study, but certain restrictions have been placed on continuation in the program. Conditional acceptance may remain in effect for no longer than one (1) academic year.
- Defer: 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

- Candidates must identify a specific internship experience that aligns with intended professional and/or graduate school goals.
- Prior to the beginning of the internship, candidates are responsible for the following:
- Meeting with the John Carroll internship director for approval of the specific internship experience.
- Obtaining approval from the proposed internship site supervisor for completion of all internship requirements.
- Completion and submission of all required formal documentation to the John Carroll internship director for final approval of the internship experience.
- Approval of the internship experience by the John Carroll internship director must be obtained in writing, prior to beginning the experience.
- Please consult the Internship Handbook for specific details and required forms.
- If a candidate is not approved for an internship, additional content-area course work will be substituted.


## 5. Exit Assessment

- Candidates for graduation will complete a formal exit interview in their final semester of course work.
- Candidates for graduation will complete a formal written program evaluation specific to their major.


## Physical Education Courses (PE)

## Activity Courses

Note: Students may apply a maximum of 4 Physical Education (PE 120-199) credits toward graduation requirements and, unless otherwise specified, no more than 8 credits from any combination of AR, CE, FA, or PE (120-199) courses. Credits from PE courses (120-199) 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 (MS130) 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, condition, and recovery. Also, cardiovascular and respiratory fitness, weight control, and stress control.
132. LEADERSHIP IN PHYSICAL TRAINING (MS 132) $1 \mathbf{c r}$. 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. WEIGHT TRAINING 1 cr .

## 145. JOGGING 1 cr.

## 146. BEGINNING TENNIS 1 cr .

## 147. INTERMEDIATE TENNIS 1 cr .

161. RACQUETBALL 1 cr.
162. HANDBALL 1 cr.
163. BASKETBALL 1 cr.
164. VOLLEYBALL 1 cr .
165. PICKLEBALL 1 cr.
166. NUTRITION 1 cr.
167. SPECIAL TOPICS 1 cr.

## Theory and Method Courses (EPA)

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. FOUNDATIONS OF EXERCISE SCIENCE AND SPORTS STUDIES 3

cr. Major ideas, institutions, movements, and individuals in the fields of exercise science and sports studies. Includes an examination of potential careers in exercise science, sports studies, and allied health professions. Includes a fieldwork experience.
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. HUMAN ANATOMY 3 cr. Corequisite: EPA 205L. Structure and function of the human body, including cells, tissues, and skin, as well as the skeletal, articular, and muscular systems.

205L. HUMAN ANATOMY LAB 1 cr. Corequisite: EPA 205. Includes use of slides, human skeletons, and dissections to study cells, tissues, and skin, as well as the skeletal, articular, and muscular systems of the human. Autopsy observations included.
206. HUMAN PHYSIOLOGY 3 cr. EPA 205; corequisite: EPA 206L. Structure and function of the body, including the nervous, circulatory, lymphatic, respiratory, renal, and digestive systems.

206L. HUMAN PHYSIOLOGY LAB 1 cr. Corequisite: EPA 206. Dissection and examination of animal hearts and brains; use of various measuring devices for studying the nervous, circulatory, respiratory, renal, and digestive systems. Includes autopsy observations.
208. LIFESPAN 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 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.
229. HUMAN NUTRITION 3 cr . Overview of basic nutritional guidelines relevant to daily life; the role of nutrition in development and efficiency of energy systems and energy balance; and disabilities related to insufficient or inappropriate nutritional practices.

## 232. RESEARCH METHODS IN EXERCISE SCIENCE AND SPORTS

STUDIES 3 cr. Prerequisite: QA Course. Research methodology used in exercise science, allied health and sports studies. Emphasis on the individual aspects of the research process, such as the use of research databases, developing reviews of literature, developing research questions. Development of a research proposal is required.
299. SPECIAL TOPICS 1-3 cr. Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.

## 303. CARE, PREVENTION, AND TREATMENT OF ATHLETIC INJURIES

12 cr. Prerequisites: EPA 206/206L; corequisite: EPA 303L. Introduction to basic concepts of athletic training. Emphasis on common athletic injuries, basic conditioning, prevention, recognition, and treatment of athletic injuries.

## 303L. CARE, PREVENTION, AND TREATMENT OF ATHLETIC

INJURIES LAB I 1 cr. Corequisite: EPA 303. 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.

## 304. CARE, PREVENTION, AND TREATMENT OF ATHLETIC INJURIES

II 2 cr. Prerequisites: EPA 303 and 303L; corequisite: EPA 304L. Topics from 303 expanded: in-depth examination of athletic injury evaluation, management, and basic rehabilitation concepts.

## 304L. CARE, PREVENTION, AND TREATMENT OF ATHLETIC

INJURIES II LAB 1 cr. Prerequisites: EPA 303 and 303L; corequisite: EPA 304. Extension of EPA 303L. 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.

[^4]of this knowledge base to professional development. Emphasis on professional development, planning, organization, and implementation of plans in situations relevant to career goals, such as teaching, coaching, fitness and rehabilitation, athletic training, and sports administration.
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 that influence lifestyle wellness throughout the lifespan.
399. SPECIAL TOPICS 1-3 cr. Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.
407. EXERCISE PHYSIOLOGY 3 cr. Prerequisites: EPA 206 and 206L; prerequisites or corequisites: 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 consideration in exercise.

> 408. ORGANIZATION AND ADMINISTRATION OF EXERCISE SCIENCE AND SPORTS STUDIES 3 cr. Prerequisite: acceptance into Exercise Science or Sports Studies major. Administrative functions of planning and organizing programs in athletics and exercise science. Additional emphasis on staffing, directing, and coordinating programs. Includes field experience in candidate's area of study.
409. KINESIOLOGY 3 cr. Prerequisites: EPA 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. FITNESS AND MOTOR SKILL DEVELOPMENT IN CHILDREN 3 cr.

Curriculum, procedures, methodology, instructional strategies, and assessment related to fitness skills, motor skills, sports skills, and physical activities that are developmentally appropriate-intellectually, physically, emotionally, and sociallyfor children from pre-kindergarten through the primary grades. Field experience.
412. EXERCISE TESTING AND PRESCRIPTION I 3 cr. Prerequisite/ corequisite: EPA 407 and 409. Overview of the proper assessment and interpretation of various exercise tests, and appropriate exercise prescriptions for apparently healthy individuals. Designed to prepare exercise science students for the American College of Sports Medicine's (ACSM) Certified Exercise Physiologist certification and for employment in various health and fitness settings.
413. EXERCISE TESTING AND PRESCRIPTION II 3 cr. Prerequisite: EPA 412. Overview of the adaptations necessary for proper assessment, interpretation, application of various exercise tests, and appropriate exercise prescriptions for special populations. Overview of each unique physiology, effects of the condition on the exercise response, effects of exercise training on the condition, and recommendations for exercise testing and programming in a selected topics format, including normal and diseased.

## 420. DISABILITIES: LEARNING, MOVEMENT, AND PROGRAM DEVELOPMENT 3 cr. Prerequisites: EPA 208, PS 175, or PS 261. 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.

432. MOTOR LEARNING 3 cr. Prerequisite: EPA 208, PS 175, or PS 261. 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: EPA 407 and EPA 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 that guide the development and implementation of strength and conditioning programs. Laboratory experiences included.

## 435. ETHICAL PROBLEMS IN EXERCISE SCIENCE AND SPORTS

STUDIES 3 cr. Prerequisites: acceptance into Exercise Science or Sports Studies major; senior standing. The nature of ethics through the study of ethical issues in athletics and exercise science, e.g., use of performance-enhancing drugs, fitness guidelines for youth sports, recruiting, and professionalism.
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 Exercise Science or Sports Studies 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 candidate, such as athletic training, cardiac rehabilitation, fitness and coaching in various contexts. A proposed plan must be approved by the JCU internship coordinator prior to enrollment. Final paper developed in conjunction with the practicum.
497. INTERNSHIP AND SEMINAR 3 cr . Prerequisites: acceptance into Exercise Science or Sports Studies major; junior or senior standing; and permission of instructor and internship coordinator. Candidates select an internship assignment in line with their graduate school area of interest, e.g., athletic training, strength and conditioning, physical therapy. A proposed plan must be approved by the internship coordinator prior to enrollment; final research paper must relate to the internship. Portfolio development required. Completion of internship experience is required.
498. INDIVIDUAL RESEARCH PROJECT 1-3 cr. Available to exercise science majors who have created a research project idea in collaboration with a faculty member. Instructor and chair permission required.
499. SPECIAL TOPICS 1-3 cr. Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.


## Finance (FN)

Professors: F. J. Navratil, W. Elliott; Assistant Professors:<br>S. B. Moore, F. Zhan

Finance applies economics, accounting, and mathematics to financial decisionmaking. 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 mangers. Others enter the consulting or legal professions or develop careers in the various occupations related to investment activity or financial institutions. The Finance program has recently been accepted into the CFA Institute University Recognition Program. This status is granted to institutions whose degree program incorporates at least $70 \%$ of the CFA Program Candidate Body of Knowledge (CBOK), which positions students well to sit for the CFA exams. 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.

Professional experience and internships are not required, but strongly encouraged. Many finance majors take advantage of the opportunities presented by the Boler internship initiatives.

## Program Goals: Undergraduate Finance Major

The broad 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.

Upon graduation, finance majors from John Carroll University should have a strong academic foundation in finance that allows them to:

- Enter a career in financial management and have the potential to lead.
- Enter a quality graduate program in a variety of fields, especially in business.
- Seek further professional certification in finance or a related field (for example, as a Chartered Financial Analyst (CFA), Certified Financial Planner (CFP), or Certified Managerial Accountant (CMA), Series 6 and Series 7 exams).


## Program Learning Goals in Finance.

John Carroll's finance program intends to provide students with the foundational knowledge, skills, and abilities to pursue a career in finance, advanced study in business, or further certification in finance and related fields.

Graduating seniors in finance should have:

1. Knowledge of financial accounting, financial markets, financial instruments, and financial theories.
2. Skills necessary to define and solve familiar financial management problems.
3. Ability to articulate financial problems and pose appropriate solutions to problems that are unfamiliar.
4. Ability to recognize limitations of suggested solutions and deal with ambiguity inherent in many situations.

## Major Requirements

Major in Finance: A total of 65-68 credit hours as described below.
Business Core: 41 credit hours, including MHR 461 or MHR 463.
FN 312: Prospective finance majors must complete FN 312 with a minimum grade of C.

Major Courses: 24-17 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: AC 201-202, EC 201-202, and EC
210. Financial problems in organization, operation, expansion, and reconstruction of business concerns, particularly the corporate type.
316. FINANCIAL MARKETS AND INSTITUTIONS 3 cr. Prerequisite: minimum grade of C in 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 either FN 316 or FN 342. The capstone course in the finance major. Incorporates the case study method so that students can demonstrate their knowledge of corporate finance, financial markets, and financial institutions from previous course work in the major, including economics and accounting courses. Also emphasizes oral and written communication skills.

## 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 department guidelines established for such study.


## Fine Arts (FA)

Lecturer: C. Caporella

Courses in the fine arts help enrich and extend the mind and body. With a strong Jesuit tradition of sacred expression, as well as a commitment to greater human discovery, John Carroll University offers a range of courses in music and dance. There are opportunities to study the fine arts in both group and solo settings. Most courses in the fine arts will qualify for the CAPA requirement in the new Integrative Core Curriculum. Students interested in courses in the visual or theatre arts should consult the sections of the Bulletin on Art History and Humanities as well as Communication and Theatre.

Students may apply 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 (COMM) 140-175, Career Education (CE), Fine Arts (FA), International Cultures (IC) and/or Physical Education (PE) 120-180 may be applied toward graduation.

## Choral Ensembles

109C. CECILIA SINGERS 0-1 cr. A women's vocal ensemble that explores, prepares, and performs both secular and sacred repertoire. Music includes literature from a variety of musical styles, cultures, and traditions, including classical, contemporary, and American music such as Broadway and vocal jazz. The choir performs at various concerts and events on campus. Audition required.

109D. UNIVERSITY SCHOLA CANTORUM 0-1 cr. A select SATB vocal ensemble that performs sacred and secular repertoire throughout the academic year. Students explore, prepare, and perform music literature from a variety of musical periods. Genres include chant and polyphony through standard sacred repertoire, contemporary sacred and popular tunes, madrigals, a cappella, and vocal jazz. Audition Required.

109E. UNIVERSITY CHAPEL ENSEMBLE 0-1 cr. A vocal and instrumental ensemble that offers liturgical music for regular weekend Masses, special liturgies, and prayer services on campus. Students explore, prepare, and perform sacred and liturgical repertoire from a variety of musical styles with a focus on contemporary liturgical music and praise songs.

## Dance

105A. MODERN DANCE 1 cr. Introduction to basic movement principles and appreciation of dance in general. Developing efficiency of movement, range of motion, strength, endurance, agility, coordination, and stability, with a focus on alignment and relaxation. No previous dance experience required.

105B. SOCIAL/BALLROOM DANCE 1 cr . Introduction to the rhythms, styles, and movements used in partner dances. Dances may include the waltz, tango, foxtrot, cha cha, rumba, swing, mambo, and merengue. No previous dance experience required.

## Instrumental Ensembles

110A. JCU PEP BAND 0 cr. An instrumental ensemble that offers music to support the Blue Streaks' athletic teams and enhance the atmosphere at their games. Informal audition required.

110B. JCU JAZZ ENSEMBLE 0-1 cr. An instrumental ensemble that plays an array of classic and contemporary stage band pieces in various styles. The jazz ensemble performs at concerts and special events on campus as well as at jazz festivals in the greater Cleveland area. Informal audition required.

110C. JCU WIND ENSEMBLE 0-1 cr. An instrumental ensemble that rehearses and performs music composed, transcribed, or arranged for woodwind, brass, and percussion instruments. Students learn musical concepts and technique through regular rehearsal and study in an ensemble atmosphere. Informal audition required.

110D. STRING ENSEMBLE 0-1 cr. An instrumental ensemble that prepares and performs music composed, transcribed, or arranged for strings. Literature from a variety of musical periods and traditions is explored in a weekly rehearsal environment. Students improve their playing technique while creating music in a group setting. Informal audition required.

110J. BRASS ENSEMBLE 0-1 cr. An instrumental ensemble that explores musicianship, embouchure, and technique in the context of an all-brass group. Repertoire includes classical, traditional, and contemporary music. Weekly rehearsals. Informal audition required.

110K. PIAZZOLLA ENSEMBLE: THE NUEVO TANGO 1 cr. A unique ensemble that explores the music of the prolific Argentinean composer Astor Piazzolla. Piazzolla created a whole new genre of music between the 1950s and 1990s while living in New York City and later in Argentina, France, and Italy. Open to instrumentalists and vocalists of all types.

110L. RECORDER CONSORT 1 cr . An ensemble that prepares and performs literature from the liturgical, Renaissance, and baroque styles. The different instruments of the recorder family are introduced, technical skills are developed, and ensemble playing is explored.

## Applied Music

112A. BEGINNING CLASSROOM GUITAR 1 cr. Introduction to various guitar styles with an emphasis on reading music and beginning guitar technique. Basic music theory is introduced.

112B. INTERMEDIATE CLASSROOM GUITAR 1 cr . A continuing analysis and applied study of guitar styles and music theory. Guitar study at the intermediate level offers a focus on guitar chords and their application in all styles of music. Classical, folk, pop, and jazz styles are introduced. The study of music theory and its related chord progressions is continued. Placement audition required.

112C. ADVANCED CLASSROOM GUITAR 1 cr. A refinement of applied guitar styles, including classical guitar, is offered along with advanced music theory and its application. Placement audition required.
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.
116. THE ROLE OF CANTOR 0-1 cr. The applied study of song as a means of leading the prayer of a worshiping community. Each student will study techniques of vocal production, diction, and gesture to regularly lead the singing at worship services and liturgies on campus. Weekly attendance at a JCU liturgy is required. The cantor also learns solo verses and/or passages to which the congregation responds. Audition required.
120. APPLIED VOICE 1-3 cr. Weekly individual instruction in voice. Individual vocal technique is addressed through breathing, vocalization, and a general understanding of the physiological properties of the vocal mechanism. Permission required.
121. APPLIED GUITAR 1-3 cr. Weekly individual instruction in guitar. Development of guitar technique as it relates to the individual student. Various guitar styles are offered with an emphasis on note reading and technique as assessed for the individual student. Permission required.
122. APPLIED PIANO 1-3 cr. Weekly individual instruction in piano. Musical and technical skills are addressed with a focus on developing musicianship, listening skills, piano technique, and good practice habits as they pertain to the study of the piano while building a repertoire and performance capabilities. Permission required.
123. APPLIED ORGAN 1-3 cr. Weekly individual instruction in organ. Musical and technical skills are addressed with a focus on developing musicianship, listening skills, organ technique, and registration with good practice habits as they pertain to the study of the organ while building a repertoire and performance capabilities. Permission required.

124A. LITURGICAL KEYBOARD I 1-3 cr. Basic keyboard and accompanying skills with a focus on their application in a liturgical setting. Students study and play music from a variety of genres, including classical, hymnody, contemporary music, and praise songs. Accompanying service music and acclamations as well as sightreading are addressed. Practicum includes attendance and playing at one of the JCU weekend liturgies. Permission required.

124B. LITURGICAL KEYBOARD II 1-3 cr. Builds on the skills developed in Liturgical Keyboard I with a focus on ways to encourage and enhance congregational singing from the keyboard. Introduces chant and choral octavo accompaniments. Practicum includes attendance and playing at one of the JCU weekend liturgies with chorus. Permission required.
125. DIRECTED INSTRUMENTAL/VOCAL STUDY 1-3 cr. Applied instrumental/vocal study with a performance venue studio class for beginning, intermediate, and advanced students. Includes 30 minutes of scheduled, individual applied instruction each week along with one weekly gathering of all applied students for performance opportunities. Applied fee.

## General Music

150. INTRODUCTION TO MUSIC 1-3 cr. Introductory music course designed to enhance the knowledge of music and the art of analytical, perceptive, and critical listening. Demonstrates the diversity that exists in music by presenting it within the context of the world. Explores sources, mediums, and characteristics of musical sound, basic elements of music, forms, styles, composers, historical periods, and cultural traditions. May include an experiential element.

## 151. GREGORIAN CHANT: THE SONG OF THE ROMAN CHURCH 1 cr.

 Explores the unaccompanied sacred song of the Roman Rite of the Catholic Church. An introduction to Gregorian chant notation and musical elements is offered, with weekly, in-class singing of chant melodies.
## 152. THE CHANTS OF TAIZÉ PRAYER: MUSIC OF PEACE AND UNITY

1 cr . Focuses on the story of Bro. Roger Schütz and the founding of the Taizé interdenominational community as well as the singing of the repetitive chants that have become the hallmark of Taizé prayer around the world.
153. INTRODUCTION TO JAZZ IMPROVISATION 1-3 cr. Fosters an understanding of and appreciation for the art of jazz improvisation. Students encounter the history of jazz and learn applied skills in jazz improvisation by analyzing its melody, harmony, and rhythm. Basic music theory, including chords and scales in the context of the jazz idiom, is explored.
154. AMERICAN SONG: THE JAZZ IDIOM 1 cr. Explores the various periods and artists of this American musical culture. Examination of the components of jazz composition and improvisation while singing its most popular melodies in a class setting.
155. AMERICAN MUSIC: THE FOLK IDIOM 1 cr . Explores the music of America's roots, including American traditional folk, bluegrass, gospel and blues. Study of origins, musical elements, development and influences through listening, analysis, and singing its melodies.
156. AMERICAN SONG: THE BROADWAY STAGE 1 cr. Explores the history and musical contributions of the American musical theatre. Study of vocal repertoire from the Broadway stage through weekly class discussion, analysis, and in-class performance.
157. AMERICAN MUSIC: ROCK \& ROLL 1 cr. Explores the roots of American Rock \& Roll; study of various periods of rock, diverse musical styles, and the music of its most influential artists through discussion, analysis, and in-class performance.
160. INRODUCTION TO MUSIC THEORY 1-3 cr. Develops a working knowledge of the basics of music theory through both a theoretical and practical approach. The subject matter explores theoretical and aural skills. The study of theoretical skills encompasses melodic and harmonic analysis, including the music fundamentals of scales, intervals, chords, chord progressions, and rhythms. The study of aural skills will develop the areas of sight-singing and ear training.
198. SPECIAL TOPICS 1-3 cr. Introductory topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.
298. SPECIAL TOPICS 1-3 cr. Intermediate topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.
398. SPECIAL TOPICS 1-3 cr. Advanced intermediate topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.
498. SPECIAL TOPICS 1-3 cr. Advanced topics in fine arts. Specific topic announced in schedule of classes or may be taken with permission as an individual project under supervision.


# French and Francophone Studies (FR) 

Associate Professor: M. Pereszlenyi-Pinter

The program in French and Francophone Studies is offered by the Department of Classical and Modern Languages and Cultures. The program comprises a rich curriculum in language, culture, literature, and film. An articulated sequence of courses in French leads from competence in basic French language skills to a thorough understanding of the language, as well as French and Francophone cultures and literatures.

There are well over 200 million French speakers worldwide. It is the official diplomatic language for all treaties and official documents. It is the first or one of the first official languages of 32 countries on five continents. Since the year 2000, French is accessible 24/7 worldwide via the TV5monde program available on cable television, and French media (radio, TV, print) offer online sites that are accessible from the four corners of the planet, making it very easy to be culturally and linguistically current. Studying French at JCU is especially important due to the University's close proximity to Canada, where French is an official language spoken by 9.6 million people.

Many students of French opt to complement or complete their studies in a variety of disciplines in a French-speaking country, where they can connect their future to cutting-edge fields in science and technology. This is because French-speaking countries have been at the forefront of fields such as HIV research, medical genetics (the Human Genome Project), and reconstructive surgery. French-speaking countries are also on the cutting edge of scientific discoveries and technological innovations, including microchips, video gaming, commercial satellites, nanotechnology, nuclear energy, aerospace technology, voice compression, highspeed rail services, and fiber optics.

Since French is widely spoken in many industries-including food and fashion, finance, science, and technology, as well as the humanities and social sciences-a knowledge of French can be a highly useful asset for any student. For sports fans, French and English are the two official languages of the Olympic Games, irrespective of the host country.

For post-graduate education, many graduate schools require knowledge of at least one foreign language. French is the most commonly used language after English and the second most frequently taught language in the world after English. Knowing how to speak it enriches lives and opens up unlimited opportunities. All students are also strongly encouraged to study in France or in another French-speaking country. All courses are taught in French.

## Program Learning Goals in French and Francophone Studies.

Students will:

1. Communicate skillfully and effectively in French:
a. engage in effective interpersonal communication.
b. engage in effective interpretive listening.
c. engage in effective interpretive reading.
d. engage in effective presentational speaking.
e. engage in effective presentational writing.
2. Demonstrate foundational cultural and linguistic knowledge of a target-language area:
a. demonstrate knowledge of features of the culture of a target-language area, such as its art, literature, music, film, popular culture, tradition, and customs.
b. demonstrate knowledge of how aspects of the history, politics, religion, or geography of a target-language area relate to its culture.
c. compare linguistic features of the target language with those of English.
d. compare the culture and society of the target-language area with one's own.
3. Demonstrate emerging intercultural competence:
a. demonstrate an awareness of the interplay of personal identity and culture.
b. interpret an event, cultural product, or issue from the perspective of a worldview outside their own.

## Major and Minor Requirements

Major in French and Francophone Studies: 30 credit hours.
French track:

- Students who begin the major at the 200 level: FR 201 and 202; eight 300-level French courses, two of which may be replaced by related courses as defined below.
- Students who begin the major at the 300 level: Ten 300-level courses taught in French, two of which may be replaced by related courses as defined below.
- Related courses are those outside French offerings which, at the same time, are closely related to French or Francophone culture: Art History, Classics, History, Philosophy, Political Science, IC literature and/or culture courses in translation as well as other language and literature/culture courses. Courses other than French must be approved in advance by the major advisor.


## French Studies track:

- May include up to four courses (12 credit hours) with French or Francophone content from International Cultures (IC) or approved cognate areas.
- FR 410 fulfills the capstone requirement for either track in the major and should be completed during the student's junior or senior year.

Minor in French and Francophone Studies: 15-18 credit hours.

- Students who begin French at the 100 level or higher: Six courses at the 100, 200 and 300 levels approved by the advisor.
- Students who begin French at the 200 level or higher: Five courses at the 200 and 300 levels approved by the advisor.

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 or by placement test.
102. BEGINNING FRENCH II 3 cr. Prerequisite: FR 101 or equivalent or by placement test. Amplification of language skills in a cultural context. Added emphasis on reading and writing.
103. 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: FR 102 or equivalent or by placement test; 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, computerassisted instruction.
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. FRENCH CONVERSATION 3 cr. Review of French with a focus on building oral skills through exposure to various media, including music, television, film, Internet, and print. Development of communicative competence through oral practice and use of conversational strategies and techniques.
302. WRITING AND CREATIVITY 3 cr. Development of writing ability in French through exercises that expand the imagination, using creative writing games and exercises that rely on play, memory, and a sense of adventure. Emphasis on reading as well as writing, talking, thinking, and offering feedback on the written word.
304. FRENCH CULTURE THROUGH FINE ARTS AND MUSIC 3 cr. Study of French literature and visual and other arts (architecture, painting, sculpture, music, and ballet); representative sampling of works from various literary periods.
305. LA CHANSON FRANÇAISE 3 cr. Examination of the French song, from the poetry of the troubadours to present day: la chanson traditionnelle et folklorique, le musette, l'opéra, le rock, le pop, le soul, le rap, le punk, le funk, le blues, la musique électronique (" la French touch »), le reggae, le dancehall, le jazz, le raï, and others. Exploration of how songs enrich the French lexicon, including slang; linguistic analysis of words.
306. FRENCH FOR BUSINESS 3 cr. No previous study of business expected. Multimedia introduction to the French and Francophone business world and ethics; focus on contextualized activities that use business terms in French. Role-plays, simulations of business interactions and analysis of authentic business documents help students prepare for potential employment in a French-speaking country. Students have the option to take the exam for the « Diplôme» offered by the Chambre de Commerce et d'Industrie de Paris.

## 307. THE MEDIA AND POPULAR CULTURE IN FRANCE 3 cr.

Representative sampling and comparative analysis of television, radio, music, cinema, and the press, as reflected in popular culture. Discussion of French current events in a global context. Special focus on the enduring values of the past in today's France as well as of their metamorphosis in adapting to changing realities.

## 308. FRENCH/FRANCOPHONE CULTURE THROUGH FOOD 3 cr .

Exploration of different cuisines throughout the French and Francophone world and their cultural history and significance.
310. FRENCH/FRANCOPHONE CINEMA 3 cr. 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. Lecture and discussion in French; films in French with either French or English subtitles, depending on student ability and interest, and as mutually agreed upon by instructor and students.
311. FRENCH CIVILIZATION 3 cr. 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. A'S TO Z'S: FRENCH WRITERS OVERSEAS 3 cr. Introduction to literature and artistic production in recent decades of French-speaking countries and post-colonial cultures, which forms a body of work quite distinct from literature written in France itself. Selection of key authors of the francophone world (Maghreb, Sub-Saharan Africa, Oceania, Asia, the Americas, and French-speaking Europe).
315. THE ART OF INTERPRETATION 3 cr. Introduction to French literature and culture through close critical readings of the principal literary forms, as well as oral interpretations: poetry, drama, and prose. Texts chosen chronologically from French and Francophone literatures. The "art of interpretation," or as the French call it, "explication de texte."
320. FRENCH WOMEN 3 cr. 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 Hérbert, Mariama Bâ, Maryse Condé, Assia Djebar, Hélène Cixous, and Julia Kristeva.
325. PANORAMA DE LA LITTEÉRATURE FRANÇAISE 3 cr . Reading of selections and complete works of outstanding French authors from major genres and periods, from the beginnings to modern day. Students will read works in French, discuss their significance, and listen to short lectures to situate the readings in a historical and cultural context.
330. FRENCH PRONUNCIATION THROUGH THEATRE 3 cr. Dissection of various elements of French speech for improving French pronunciation in the cultural context of famous tirades and dialogs written for the stage by France's key playwrights. Exploration and practice of rhythm, intonation, and IPA [International Phonetic Alphabet] symbols. Attention to reading proficiency and expanding vocabulary.
331. 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.
332. CREATIVE WRITING IN FRENCH 3 cr. Fundamentals and practice of creative writing across genres. Theory and practice of correct grammatical usage of the written word.
334. TRANSLATION IN FRENCH 3 cr. Methods and mechanics of translation; selection of proper tools. Comparison and evaluation of translated texts.
340. SAGES IN THE MIDDLE AGES 3 cr. Survey of medieval French literary genres and their socio-cultural background during the 10th-15th centuries, ranging from lyrical and didactic poetry, prose, and drama, to contemporary cinematic adaptations of medieval texts. Special attention to female authors and characters, the boundaries they cross, as well as the reactions of their historical and fictional counterparts.
345. FRENCH FAIRY TALES, FABLES, AND SHORT FICTION 3 cr. Fairy tales as a major trend in French literature and a continuing influence on modern fiction and film. Particular attention given to the numerous French women writers of fairy tales at the time of Charles Perrault (seventeenth century) and after. Some attention to the tradition of the "fabliau."
350. FRENCH LITERATURE AND GRAPHIC NOVELS 3 cr. Graphic novels recently adapted from French literature, including famous works by Hugo, Balzac, Proust, and Camus. Introduction to the " 9 th art" and exploration of literary devices. Thematic and stylistic evolution of "la bande dessinée" aesthetic, "high" versus "low" culture, societal and political changes in response to a press market increasingly driven by emerging youth, consumer culture, and anti-establishment discourse.
365. GRANDS ROMANS-GRAND ÉCRAN: FRENCH FICTION AND FILM

3 cr. Literary texts and their film adaptations. Focus on changes in narration, structure, and development of the subject. Introduction to the "7th art" and comparative study of literary and cinematic devices to convey ideas and attitudes

## 370. FROM VERSAILLES TO THE FRENCH REVOLUTION IN

LITERATURE AND FILM 3 cr. Important elements, trends, and developments (political, social, economic, cultural, and religious) from the early $17^{\text {th }}$ century
through the French Revolution. Films chosen to reflect student interest. Readings of epoch-making works by Racine, Pascal, Molière, Mme. de Lafayette, Madame de Sévigné, Rousseau, Voltaire, and others.
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.

## 410. SENIOR CAPSTONE IN FRENCH AND FRANCOPHONE STUDIES 1-3

cr. Independent research project chosen in consultation with a capstone advisor. The capstone project should reflect both the student's interest in French and the courses s/he has taken to fulfill the major. Student will produce a written thesis in French and also give an oral presentation in French to the French faculty.
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.


# Gender, Sexuality, and Women's Studies (GEND) 

Program Director: M. W. Barnes (Sociology and Criminology); Advisory Board: M. K. Doud (Chemistry), D. Durmus (Philosophy), J. M. McAndrew (History), A. Wainwright (Library), A. Cottrell (VPAC)

Gender, Sexuality, and Women's Studies is an interdisciplinary major that helps prepare students for living in a diverse and global society by examining how the social construction of gender/sexuality can shape personal identities, beliefs, and opportunities. In a range of courses, students will systematically analyze the intersections of gender, sexuality, race, and social class.

As an interdisciplinary program, Gender, Sexuality, and Women's Studies focuses on students' integrating the skills taught across the liberal arts, and expects its majors to engage in both critical and creative thinking. The curriculum examines a range of issues across both national and international contexts. These include gendered violence, sexual harassment, queer theory, inequality, power dynamics, human interaction, and social justice. The analytical skills students acquire in the study of gender and society can be applied beyond the campus to other activities and eventually to their professional careers.

The program offers both a major and minor. The requirements are intentionally flexible enough to allow students to focus on their particular areas of interest and to allow it to fit well with other (second) majors and minors on campus. Every GEND major completes an internship at a site that suits their interests and goals. As a social justice-focused program, many students participate in events and/or volunteer throughout their years at John Carroll. To declare a major, students must complete GEND 101 and meet with the program director to submit a formal application.

## Program Learning Goals in Gender, Sexuality, and Women's Studies.

Students who complete a major or minor will be able to:

1. Articulate a critical understanding of the impact of gender and sexuality within their own lives.
2. Describe how constructions of gender/sexuality have socially, historically, and globally shaped the experiences of both women and men.
3. Describe the importance within people's lives of the intersections of gender and sexuality with other social hierarchies such as race, ethnicity, class, religion, and disability.
4. Analyze gender and sexuality using interdisciplinary and feminist theories, methodologies, and paradigms.
5. Identify ethical and social justice dimensions and implications within the study of gender/sexuality.
6. Demonstrate the development of knowledge and skills to deal positively with gender and sexuality-based inequality within their communities.

## Major and Minor Requirements

Major in GEND: 36 credit hours. GEND 101, 400, and 410 are required. Complete one course from Group 1, Group 2, and Group 3 below ( 9 cr .). Complete any other six additional courses ( 18 cr .) from the approved list. Of the 36 total credit hours, at least 9 credit hours should be from humanities and at least 9 credit hours from the social or natural sciences.

Minor in GEND: 18 credit hours. GEND 101 is required. Complete one course from Group 1, Group 2, Group 3 below ( 9 cr .). Complete any other two additional courses ( 6 cr .) from the approved list. Of the 18 total credit hours, at least 6 should be from the humanities and at least 6 from the social or natural sciences.

Choose one course ( 3 cr .) from each group for major or minor:
Group 1: Core Gender courses: EN 491, HS 297*, PL 330*, SC 320.
Group 2: Core Sexuality courses: HS 195, PL 388, SC 315, TRS 364, GEND 310.

Group 3: Global/Diversity courses: HS 297*, HS 310, IC 163, PL 330*, PS 342, SC 255.

Note: Study abroad may fulfill this tier, by petition.
*These courses may be used for either group, but not both.

## List of courses offered in other departments approved for the GEND major/minor:

CO 322 Women in Mass Media
CL 290 Women in Ancient Greece and Rome
EN 284 Writing Women: Introduction to Women's Literature
EN 445 British Women Writers
EN 491 Feminist Literary Criticism
FR 320 Women in French Literature and Culture
HS 150 Women in U.S. History
HS 195 Special Topics: Sexuality in America
HS 205 Women in Ancient Greece and Rome
HS 297 Special Topics: Women in the Contemporary World
HS 310 Women in Europe since 1500
IC 163 Women in Italian Society through Literature and Film
IC 205 Food in Film and Culture: The Global Gendered Table
IC 370 Hispanic Women Writers
PL 290 Major Women Philosophers
PL 330 Feminist Philosophies
PL 385 Philosophy of the Body
PL 388 Philosophy of Love and Sex
PO 299 Special Topics: Feminist Political Theory
PO 316 Social Movements
PPH 274 Peer Health Advocate Training
PS 342 Psychology of Prejudice
PS 381 Eating Disorders
PS 476 Psychology of Gender-Based Violence
SC 225 Sociology of the Family
SC 255 Prejudice and Discrimination
SC 275 Family Violence
SC 315 Sexuality and Sexual Behavior
SC 320 Sex and Gender

SC 303/SPS 303 Women, Gender Relations, and Sports
SP 399 Hispanic Women's Film
TRS 364 Christian Sexuality
TRS 437 Readings in Feminist Theology

Please see the program webpage, http://sites.jcu.edu/womensstudies/ for updates to this list and special topics courses being offered. Scheduling needs across the University may determine when these courses are offered.
101. INTRODUCTION TO GENDER STUDIES 3 cr. Introduction to the interdisciplinary field of gender and sexuality. Addresses issues such as sexism, homophobia, racism, bodies and sexuality, poverty, families, violence, and resistance. Students will gain the critical tools to analyze many gendered experiences in the U.S., such as political equity, violence, reproductive health, and representations in the media.
220. GENDER AND VIOLENCE 3 cr. Provides an interdisciplinary perspective on gender and violence as it is defined, experienced, resisted, and challenged. Examines how gendered violence functions within socially constructed systems of power and privilege, including but not limited to age, race, class, sexuality, and nationality. Includes an analysis of the dynamics of violence within specific institutional sites of power such as the state, religion, family, and especially university settings.
299. SPECIAL TOPICS 1-3 cr. Selected topic in Gender, Sexuality, and Women's Studies announced in advance. May be repeated with a different topic.
310. INTRODUCTION TO QUEER STUDIES 3 cr. Prerequisite: At least sophomore standing. Interdisciplinary introduction to queer studies, which explores the history of human sexuality, identity construction, and issues of power, inequality, and resistance. Central theories studied within a Queer Theory framework include deconstruction of categories, and the performance of multiple and non-stable constructions of gender and sexuality. Historical and evolving views on gendered, intersexed, and transgender experiences will be examined.
400. CRITICAL FEMINIST INQUIRY 3 cr. Prerequisites: GEND 101, junior or senior standing. Explores research techniques commonly used to study issues related to gender and sexuality, and the politics of knowledge production. Topics include historical research, literature reviews, critical analysis, interviewing, using survey data, ethics and reducing power differences in research. Students will choose an occupational field of interest and propose research on a related topic.
410. INTERNSHIP AND SEMINAR 3 cr. Prerequisites: GEND 400 , junior or senior standing, and permission of program director. Capstone experience involving an internship in a setting which aligns with the student's interests, skills, or career goals. This may include internships in non-profit, social justice, legal, health, human service, or research settings. A weekly seminar will include ongoing reports, reflections, and analysis about their field experiences.
498. ADVANCED SUPERVISED STUDY 3 cr. Prerequisites: GEND 101, junior or senior standing. Supervised independent study on advanced topics.


## German (GR)

## Associate Professor: J. Karolle-Berg

The program in German is offered by the Department of Classical and Modern Languages and Cultures. The German curriculum in language and culture at John Carroll prepares students to communicate effectively in German; to understand the cultural perspectives, products, and practices of the German-speaking world; to make connections between developments in German culture and trends in history, politics, and society; and to act with intercultural competence. At all course levels, students engage in active learning through proficiency-based instruction.

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.

## Program Learning Goals in German.

Students will:

1. Communicate skillfully and effectively in German:
a. engage in effective interpersonal communication.
b. engage in effective interpretive listening.
c. engage in effective interpretive reading.
d. engage in effective presentational speaking.
e. engage in effective presentational writing.
2. Demonstrate foundational cultural and linguistic knowledge of a targetlanguage area:
a. demonstrate knowledge of features of the culture of a target-language area, such as its art, literature, music, film, popular culture, tradition, and customs.
b. demonstrate knowledge of how aspects of the history, politics, religion, or geography of a target-language area relate to its culture.
c. Analyze cultural texts.
3. Demonstrate emerging intercultural competence:
a. demonstrate an awareness of the interplay of personal identity and culture.
b. interpret an event, cultural product, or issue from the perspective of a worldview outside their own.

## Minor Requirements

Minor in German: 18 credit hours, beginning at any level. One course in a cognate area (e.g., history, political science, philosophy) or up to 3 credit hours of experiential learning may be applied to the minor.

## 101. INTRODUCTION TO GERMAN LANGUAGE AND CULTURE I 3 cr .

Develops learners' speaking, listening, reading, and writing to the novice-high level. Learners build vocabulary and explore cultural differences between the U.S. and German-speaking countries in areas such as family, daily activities, and housing. Includes reflection on one's own and others' cultural norms, values, and beliefs. Open only to students with little or no previous study of German or by placement test. (Fall)

## 102. INTRODUCTION TO GERMAN LANGUAGE AND CULTURE II 3

cr. Prerequisite: GR 101, equivalent, or by placement test. Expands learners' speaking, listening, reading, and writing to the intermediate-low level. Learners build vocabulary and explore differences between the U.S. and German-speaking countries in areas such as food and entertainment culture, regional identity, and city life. Includes reflection on one's own and others' cultural norms, values, and beliefs. (Spring)
198. INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised independent study at the introductory 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. INTERMEDIATE GERMAN LANGUAGE AND CULTURE 3 cr.

Prerequisite-GR 102, equivalent, or by placement test. Strengthens learners' communication skills at the intermediate level. Particular emphasis on analysis of authentic materials, small-group discussions, short compositions. Learners build vocabulary and explore the history and culture of German-speaking countries since 1945. Includes reflection on one's own and others' cultural norms, values, and beliefs.
210. ENDURING THEMES, POPULAR FORMS 3 cr. Prerequisite: GR 201, equivalent, or demonstrable intermediate-mid proficiency. Taught in German. Explores topics such as national identity construction, intergenerational conflict, love and friendship, conformity versus individualism in popular-cultural forms (fairy tales, music, film, art, comics, light fiction) from the last two centuries. Focus on improving grammatical accuracy, expanding learners' communication skills to the intermediate-high/advanced level.
211. FROM WEIMAR REPUBLIC TO THIRD REICH 3 cr . Prerequisite: GR 201, equivalent, or demonstrable intermediate-mid proficiency. Taught in German. Explores the history and culture of German-speaking countries 1919-1933, such as cultural trends (e.g., Expressionism, film, Bauhaus, cabaret) as responses to and products of political, economic, and social flux. Focus on improving grammatical accuracy, expanding learners' communication skills to the intermediate-high/ advanced level.
212. GERMANY DIVIDED AND REUNIFIED 3 cr. Prerequisite: GR 201, equivalent, or demonstrable intermediate-mid proficiency. Taught in German. Explores the history and culture of German-speaking countries 1945-2000 through popular-cultural products such as film, music, visual arts, and texts. Themes include post-WWII reconstruction and cultural processing, GDR life and culture, student movements, the German Autumn, and reunification. Focus on improving grammatical accuracy, expanding learners' communication skills to the intermediate-high/advanced level.
213. THE GERMAN-SPEAKING WORLD TODAY 3 cr. Prerequisite: GR 201, equivalent, or demonstrable intermediate-mid proficiency. Taught in German. Explores the contemporary culture and society of German-speaking countries, including education, immigration and multiculturalism, trends in popular culture, and the European Union. Focus on improving grammatical accuracy, expanding learners' communication skills to the intermediate-high/advanced level.
298. INTERMEDIATE INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised study 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.

## 396. EXPERIENTIAL LEARNING IN GERMAN STUDIES 1-3 cr.

Prerequisites: 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. Prerequisite: permission of instructor. 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. ADVANCED RESEARCH IN GERMAN 3 cr. Prerequisites: permission of instructor and chair. Individual research project developed and written in consultation with appropriate faculty member.

# Greek (GK) 

## Professor: G. Compton-Engle (Chair); Associate 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 183. For courses in Latin, see page 332.
101. BEGINNING ANCIENT GREEK I 3 cr. For students with no previous study of Greek or by placement evaluation by the coordinator of Classical Languages. Introduction to ancient Greek, the language of Socrates, Homer, and the New Testament, through study of the fundamentals of grammar and vocabulary. Emphasis on development of reading skills. (Fall)
102. BEGINNING ANCIENT GREEK II 3 cr. Prerequisite: GK 101 or by placement evaluation by the coordinator of Classical Languages. 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 $1-3 \mathrm{cr}$. 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.
240. HOMER 3 cr. Readings in Greek 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. May be repeated with the other Homeric poem. (Fall)
280. READINGS IN THE NEW TESTAMENT 3 cr. Readings from the Gospels, Pauline epistles, or other early Christian texts in Koine Greek. May be repeated with a different text. Focus on New Testament vocabulary and syntax. (Fall)
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 1-3 cr. Occasional course on a selected topic announced in advance. May be repeated with a different topic.

310. GREEK PROSE AUTHORS 3 cr. Readings in Greek from the works of selected Greek historians or philosophers, such as Herodotus, Thucydides, Xenophon, or Plato. (Spring)
320. GREEK POETRY 3 cr. Readings in Greek from epic and lyric poetry, such as Hesiod, the Homeric hymns, Sappho, or Apollonius. Includes a research paper. (Spring)
330. GREEK DRAMA 3 cr . Readings in Greek from the plays of one of the following: Aeschylus, Sophocles, Euripides, Aristophanes, or Menander. (Spring)
340. TOPICS IN GREEK LITERATURE 3 cr. Readings in Greek on a selected theme from Greek literature, such as the symposium, the figure of Socrates, or landscape in literature. Includes a research paper. (Spring)
398. ADVANCED INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised independent study at the advanced level. 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. 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 (Chair), A. Kugler (Associate Dean), P. V. Murphy, J. H. Krukones (Associate Academic Vice President), D. Kilbride, R. Hessinger, M. Marsilli; Associate Professors: R. W. Purdy, J. M. McAndrew; Assistant Professor: M. Gallo

College-level history is not the memorization of dry facts and dates. It is much more than chronology-putting past events in chronological order to tell a story. Rather, it is a creative process that involves the critical interpretation of the past to answer important questions that deepen our understanding of the past and inform our activities in the present. Questions you might encounter in the classroom include: Why did the North win the U.S. Civil War? How have women contributed to political and cultural life in Japan? How do ordinary people become complicit in genocide? How have colonialism and imperialism shaped modern Latin America? At JCU, history involves discovering, researching, and learning more about your passion, but it also means discovering new interests and refining skills that will enable you to excel in any path you take after graduation.

Besides the specific learning outcomes listed below, JCU history majors will acquire an appreciation for the diversity of human experience. They will engage in serious reflection on questions of social justice and cultivate a competence in a particular area of study. Finally, they will develop an appreciation for the interdisciplinary nature of historical research and writing.


## Major and Minor Requirements

Major in History: 39 credit hours, at least 24 of which must be at the 300 and 400 level. At least 20 hours must be taken in residence.

- History core: 18 credit hours (HS 201, 202, 211, 212, 300, and HS 490/91).
- Regional electives: 9 credit hours, all at the 300/400 level - one course each in the following three areas: United States; Europe; Asia, Africa, Latin America.
- General electives: 12 credit hours, at least 9 of which must be at the $300 / 400$ level; at least one course besides HS $490 / 491$ must be at the 400 level.

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, 271, 300, 490. Global Studies [one course] (these courses are global in scope and not limited to a single geographic region); Studies of Asia, Africa, and Latin America [two courses focusing on those areas]. Upper-division courses: three 300- or 400-level electives that support a regional or thematic focus.

Minor in History: 18 credit hours. Six courses with a minimum of two at the 100 or 200 level and at least three 300-400 level courses, one of which must be at the 400 level. At least one course in two of the following areas: American; European; and Asian, African, or Latin American.

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.

## Program Learning Goals in History.

Students will:

1. Think critically:
a. assess the strengths and weaknesses of historical arguments.
b. critically interrogate primary and secondary sources.
c. employ these sources properly in fashioning their own historical arguments.
2. Research: Become competent researchers who can discover pertinent primary and secondary sources.
3. Write: Become effective writers who can clearly and elegantly express a complex, thesis-driven historical argument.
4. Speak: Develop skills in public speaking and oral presentation.

Any single course within the program may emphasize one or more of these goals. Students should start with one or more 200-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 advanced courses at the 300 or 400 level. Majors should take HS 300 in the sophomore year, in preparation for HS 490 or 491 in the senior year. A grade of at least "C" must be earned in HS 300 before a student may enroll in HS 490 or 491.

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 with 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; Peace, Justice, and Human Rights; and Gender, Sexuality, and Women's Studies.

## Introduction to History Courses

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.

201, 202. WORLD CIVILIZATION 3 cr. each. 201: earliest times to the sixteenth century; 202: sixteenth century to the present.
205. WOMEN IN ANCIENT GREECE AND ROME. 3 cr. Continuities and changes in the status and experiences of women in ancient Greece and Rome; examination of the relationship between democracy and gender and the lasting definitions of femininity that were developed out of these two particular cultural and historical contexts.

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.
216. 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.

## 218. 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.

220. REVOLUTIONARY EUROPE 3 cr. Transformation in European government, economy, society, and culture in the period of the French and Industrial Revolutions.
221. 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.
222. TWENTIETH-CENTURY GLOBAL HISTORY 3 cr. Introduction to the major themes of twentieth-century history that have shaped our contemporary world.
223. 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.
224. PEACE BUILDING AFTER EMPIRE 3 cr. Employs approaches from the fields of history and literature to examine the impact empire-building and, subsequently, decolonization have had on societies that experienced (and, in some cases, continue to experience) sectarian conflict related to imperialism. Case studies might include, but are not limited to, South Africa, Northern Ireland, India, and Israel/Palestine.
225. AFRICAN AMERICAN HISTORY 3 cr. Overview of the black experience from its West African roots, through slavery, and finally to freedom in modern America. Focus on leaders, movements, community, and race relations.
226. NATIVE AMERICAN HISTORY 3 cr. History of the indigenous peoples of North America from their initial contact with European invaders in the 17th century until their last major battles against the Euro-Americans on the western Plains in the late 19th century. Focuses on the impact of cultural and biological exchange between Europeans and Indians, assessing the dynamics of disease, trade, and military conflict.
227. HISTORY OF MEDICINE IN AMERICA 3 cr. Surveys the art and science of healing from the colonial period through the present. Focuses on the conception of the healing arts, the evolution of the hospital system, the shift to private insurance, the growth of scientific research, and the social implications of disease and treatment.
228. 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.
229. SPIRITUAL AWAKENINGS IN EARLY AMERICA 3 cr. Exploration of early American religious history, focusing on a time frame encompassing the two major religious revivals historians have referred to as the Great Awakening and the Second Great Awakening. Looks at spiritual birth and rebirth within various communities, including white evangelicals, Native Americans, enslaved AfricanAmericans, and the Mormons.
230. UNITED STATES FOREIGN RELATIONS 3 cr. Examines America's diplomatic, economic, military, and cultural relationships with other nations, with emphasis placed on the period from 1895 through the present.
231. ATLANTIC WORLD TO 17003 cr . Examines the early history of European exploration of the Atlantic World. Shaped by new diseases, new plants and animals, new technologies, and new political configurations, the New World gave rise to new sets of identities, as people from Europe, Africa, and the Americas adapted to circumstances out of necessity.
232. 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.
233. 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.
234. 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.
235. WOMEN IN THE CONTEMPORARY WORLD 3 cr. Twentieth-century women's history from a global perspective focusing on women's political activism and involvement in movements for social change. Explores significance of gender, the body, and sexuality in the lives of women worldwide.
236. CHILDHOOD IN AMERICAN HISTORY 3 cr. Explores the history of childhood in America, highlighting its variability across time and cultural groups. Considers conceptualizations of childhood such as Puritan notions of "miniature adulthood," Lockean concepts of "tabula rasa," and modern concerns about "adultification." Also, how and why the length and stages of childhood have shortened and lengthened in the American past.
237. SEXUALITY IN AMERICA 3 cr. Surveys the history of American sexuality and gender from the colonial era to the present. Cross-cultural encounters, male-female sexual politics, and changing conceptions of homosexual and heterosexual identities. Expectations for sexual and gender comportment have varied across time and region.
238. WORLD WAR TWO 3 cr . Examines the causes, conduct, and consequences of the Second World War from a global perspective. In addition to the general study of land and naval operations and tactics, special attention will be given to the war's impact on civilian populations, the lot of the common soldier, generalship, unrestricted submarine warfare, and strategic bombing offensives.
239. VIETNAM WAR 3 cr. Examines the origins, conduct, and consequences of the American phase of the Vietnam War. The period 1945-1975 will be viewed from the perspective of the U.S., the North Vietnamese, and the South Vietnamese. The course poses a question that still puzzles and even haunts many people today. "How did the United States win every major battle in and over Vietnam and yet lose the war?"
240. HISTORY OF THE CARIBBEAN. Examines the evolving contest for power in the Caribbean Basin. Conquest of the Caribbean basin by the colonial European powers, hierarchies of race and class, resistance to colonial masters, dismantling of major European New World empires by piracy, slave rebellion, and other insurgencies.

## 270. INTRODUCTION TO LATIN AMERICAN HISTORY AND CULTURE

$\mathbf{3 c r}$. Surveys the main topics of Latin American history down to the present, emphasizing native peoples, gender roles, military dictatorships, and human rights.
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). Focuses 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.


#### Abstract

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 on 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.


277. THE EMPIRE OF PAPER: THE SPANISH COLONIAL EXPERIENCE THROUGH LITERARY SOURCES. 3 cr. Explores Spanish colonialism (15001800) in Latin America and Asia using literary texts as primary sources. Discusses issues of (self) representation, dominance, hegemony, and identity/ethnicity construction.
278. 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.
279. 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.
280. CONTEMPORARY EAST ASIAN HISTORY 3 cr . The political, social, economic, cultural, and foreign relations of China, Japan, and Korea since 1945.
281. 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 $17^{\text {th }}$-century Tokugawa Era to present day.
282. 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.

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. HISTORICAL METHODS 3 cr. Exploration of history as a way of knowing and communicating the past; historiography, research, and writing methodology; developing a historical perspective.
301. TOPICS IN ANCIENT GREEK HISTORY 3 cr . Introduction to Greek history through consideration of primary sources (e.g., historical documents, material culture, or literary texts). Topics may focus on a period or theme in Greek history between the Bronze Age and the incorporation into the Roman empire.
302. TOPICS IN ROMAN HISTORY 3 cr. Introduction to Roman history through consideration of primary sources (e.g., historical documents, material culture, or literary texts). Topics may focus on a period or theme from the Roman Republic and/or Empire.
303. 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.
304. HISTORY OF THE POPES 3 cr. Examines the history of the popes, and the papacy as an institution, from the origins of Christianity in Rome in the first century to the present. Major topics include the growth of papal power both theological and administrative in Late Antiquity and the Middle Ages, the impact of the Reformation on papal power, and the challenge of political and scientific modernity to the papacy.
305. WOMEN IN EUROPE SINCE 15003 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.
306. 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.
307. IMPERIALISM AND DECOLONIZATION 3 cr. Examines motivations and justifications for European expansion into Asia and Africa during $19^{\text {th }}$ and $20^{\text {th }}$ centuries, and strategies for accommodation and resistance-and ultimately revolution-developed by newly colonized people. Focuses primarily on Britain and France as imperial powers, and China, India, and parts of Africa as sites where local people ultimately asserted their independence.
308. 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.
309. HISTORY ON FILM 3 cr. Cinematic recreations of the past and ways of assessing them, especially as compared with written history; dramatic features and documentaries as historical sources that reflect their eras of origin.
310. 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.

> 371. OUR UNRULY DAUGHTERS: WOMEN AND THE CATHOLIC CHURCH IN EARLY MODERN SPAIN AND LATIN AMERICA 3 cr . Focuses
> on the relationship between women and the Catholic Church in 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.
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.
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.
414. THE CATHOLIC EXPERIENCE 3 cr . The capstone course for the minor in Catholic Studies. Requires students to examine major issues in the Catholic intellectual traditions in a historically critical way. An issue underlying all other issues in the course is the development of doctrine. Open to students enrolled in the Catholic Studies minor.
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.
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.
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.
440. UNITED STATES SINCE 19453 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.
441. AMERICA IN THE 1960s 3 cr . Attempts to make sense of the most polarizing and turbulent decade of the twentieth century, including its major issues and events-the Civil Rights Movement, the Vietnam War, the New Left, the resurgence of conservatism, and urban unrest.
444. 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. Focuses 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.)

## 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.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.
478. 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.
479. SENIOR SEMINAR 3 cr. Prerequisites: HS 300 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. Fulfills the additional writing requirement in the major (AW) mandated by the University's Integrative Core Curriculum.
480. SENIOR THESIS 3 cr. Prerequisites: HS 300, 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. Fulfills the additional writing requirement in the major (AW) mandated by the University's Integrated Core Curriculum.
481. 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.
482. 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.
483. INDEPENDENT STUDY 1-3 cr. Prerequisites: permission of project advisor and department chair. Directed reading or individual research.

## Honors Program(HP)


#### Abstract

The Honors Program at John Carroll University cultivates a community whose members embrace gaudium de veritate - joy from truth - and lead lives devoted to learning. Honors Program graduates lead and serve in the world by sharing their intellectual gifts and love for learning with others. The program sets four goals for its curriculum, with graduates characterized by excellence in:


1. Critical and integrative thinking.
2. Active engagement within and beyond the classroom.
3. Reflection and discernment in the Ignatian tradition.
4. Effective and eloquent communication.

The first and second Honors Program curriculum goals particularly support the University learning goals related to developing students' "integrative knowledge of human and natural worlds," "habits of critical analysis and aesthetic appreciation," and ability to "apply creative and innovative thinking." The third curriculum goal supports the University learning goals related to developing students' ability to "cultivate a habit of reflection" and "practice mature decision making and care for the whole person." The fourth curriculum goal supports the University learning goal to "communicate skillfully in multiple forms of expression."

The Honors Program offers a curriculum specially designed around high-impact pedagogies that suit outstanding students. The three components of the curriculum include Honors-specific Core courses (the "Honors Core"), an individualized sequence of goal-oriented experiences (the "Honors Pathway"), and a mentored research project (the "Honors Capstone").

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 one semester at John Carroll, and transfer students who have an outstanding academic record, may also apply for admission to the program. Interested students should contact the Honors Program director 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.

1. The Honors Core. Includes HP 101 (see description below), Honors-specific sections of courses fulfilling the Jesuit Heritage component of the University's Integrative Core requirements, COMM 125, and AR 101: Advising. Specific to the Honors Program Core requirements, students must also complete HP 290 and HP 348 (see descriptions below). These courses are open to Honors students only and are identified with an " H " after their course numbers.
2. The Honors Pathway. Students work with advisors and the Honors Program director to identify, meet, and reflect on experiences that fulfill the Honors Program goals and support individual students' discernment process. In completing the Honors Pathway, students are expected to demonstrate excellence in depth of scholarship and engaged learning. For more information, please visit http://sites.jcu.edu/honors.
3. The Honors Capstone. Includes HP 349 and HP 450 (see descriptions below). Three-credit departmental capstone may apply toward HP 450 with director's approval. Students design, complete, and disseminate an independent research or creative project with a faculty advisor and submit it to the Honors Program for approval. All Honors Program students must complete HP 348 and HP 349 before they may enroll in HP 450 or its departmental equivalent. Guidelines for procedures are available online and from the director.
4. 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 may 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.

Further details about Honors Program requirements and privileges are available from the director of the Honors Program or its website (http://sites.jcu.edu/ honors/).
101. HONORS COLLOQUIUM. THE LIFE OF THE MIND 3 cr . Exploration of the Honors Program curriculum goals, with particular emphasis on how, where, and why we learn. Fulfills foundational competency requirement in composition (EN 125). Taken in the fall semester of the first year. Required of all Honors students.
290. DIRECTED READINGS 2 cr. Prerequisite: HP 101. Required of all Honors Program students. Small group discussions based on readings (or other media) selected by discussion leaders.
299. HONORS INTERNSHIP 1 cr. Planning, coordinating, and evaluating Honors Program-sponsored experiential learning and community-building activities in Cleveland and nearby areas. Commitment of 50 hours of activities for the semester expected. Students 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.
348. HONORS CAPSTONE: REASEARCH EXPLORATIONS 1 cr. Required of all Honors Program students. Prerequisite for HP 349. Sophomore status required. Focuses on how research is conducted in students' chosen academic disciplines. Prepares students to develop and appropriately address a disciplinespecific research question for their Honors Capstone. Students must earn a C+ or better in HP 348 in order to enroll in HP 450 or equivalent.
349. HONORS CAPSTONE: PROJECT DEVELOPMENT 1 cr. Prerequisite: HP 348. Required of all Honors Program students. Prerequisite for writing HP 450 or equivalent. Must be completed in the semester before students enroll in HP 450 or departmental equivalent. Depending on the major and recommendations of the faculty advisor and director of Honors Program, the course is taken in spring of junior or fall of senior year. Approval of the advisor and director of the Honors Program required for registration. Focuses on completion of research proposal or preliminary research report for the Honors Capstone.
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. HONORS CAPSTONE: COMPLETION AND DISSEMINATION 3 cr .

Prerequisites: HP 348 and HP 349. Independent study project under the direction of a faculty advisor. Approval of the advisor, the director of the Honors Program, and the appropriate dean is required prior to registration. Forms and procedures are available from the Honors Program 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.


## Humanities

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

Working in concert with an advisor, students can design their own Humanities major curriculum to match their interests in past or present human cultures. This major is 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. This major and minor is also designed so that students may use linked and other Core courses from the new Integrative Core Curriculum to develop an integrated major or minor. 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 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, $19^{\text {th }}$-century studies, $20^{\text {th }}$-century studies, global 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 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, consult the Graduate Studies Bulletin.

## Program Learning Goals in Humanities.

Students will:

1. Recognize and understand major artists and monuments of world art, and be able to identify the characteristics and distinguishing features of works of art and architecture in their historical and cultural settings. They will learn to make comparisons across cultures and time periods, leading to an understanding of art and culture within a global context.
2. Demonstrate a knowledge of vocabulary specific to the visual arts and develop a proficiency in visual literacy that will prepare them for graduate study and/or careers in the visual arts, architecture, the media, and related fields.
3. Integrate the knowledge of various Humanities disciplines in a unique fashion by creating, with the supervision of a faculty advisor, a self-designed major that integrates course work from the following areas: art history, literature, history, theology and religious studies, and/or philosophy.
4. Engage with the curatorial and institutional dimensions of art collections and exhibitions by studying at local cultural institutions, including the Cleveland Museum of Art and the Cleveland Museum of Contemporary Art.
5. Be able to locate, interpret, and analyze primary and secondary sources relevant to solving research problems in the visual arts.
6. Recognize, understand, and apply critical, theoretical, and methodological approaches to the history of representation understood within broader sociocultural and interdisciplinary perspectives.


## Major and Minor Requirements

Major in Humanities: 34 credit hours, at least 21 of which must be at the 300 or 400 level. The 34 hours are divided into three academic areas, as follows:

12 credit hours in Art History.
1 credit hour Capstone Course (AH 497).
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, $19^{\text {th }}$-century studies, $20^{\text {th }}$-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. Students may count Art History courses from the EGC and/or linked section of the Integrative Core as elective courses within the major. The additional hours of free electives beyond the Integrative 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. Students must assemble a capstone portfolio to complete the Humanities major.

Language: While there is no additional language requirement beyond thethe Core the Core for the Humanities major, a reading knowledge of the Core for the Humanities major, a reading knowledge of one or more foreign languages relevant to the student's area of focus 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, 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, $19^{\text {th }}$-century studies, $20^{\text {th }}$-century studies, American studies, French studies, Asian studies, classical studies, or some other theme designed by the student. The area of focus should be defined by working with a faculty advisor from the Department of Art History and Humanities. Students may count Art History courses from the EGC and/or linked section of the Integrative Core as elective courses within the minor.

# International Business with Language and Culture (IB) 

Professors: J. H. Martin, P. R. Murphy, Jr., W. O. Simmons (Director, Associate Dean), G. Weinstein; Associate Professors: L. R. Cima, S. K. Kahai, L. G. Ferri, P. Mason; Assistant Professors: F. Zhan, S. Lim, A. Randrianasolo, Y. Wu

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.

Becoming men and women for others through global engagement is fundamental to the mission of John Carroll. Including language and culture studies with the study of international business is an excellent way to develop that sense of 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. In addition to the language, culture, and international business knowledge gained, employers recognize and value the added skill sets acquired and demonstrated through this major, such as adaptability, flexibility, tenacity, and problem-solving. Graduates of this major successfully pursue careers across a wide variety of industries and locations.

## Program Learning Goals in International Business with Language and Culture.

Students will acquire:

1. Proficiency in a second language and culture.
2. 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.


## Major and Minor Requirements

## Major in International Business with Language and Culture: In

addition to completing the Integrative Core Curriculum, a total of 62-80
credit hours is required as described below.
Language and Culture: 0-24 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 recommended. The country-specific classes may be counted toward University Integrative Core requirements, when feasible.

Business Core: 41 credit hours, including MHR 461.
Major Courses: 21 credit hours. Required courses: IB 301, MK 361, FN 439 or EC 342, IB 495, and three international business electives to be taken here or abroad. Acceptable electives at Boler include EC 342 or FN 439, EC 352, SCM 361, MHR 361, or EC 343. International elective classes from the College of Arts and Sciences must be approved by the IBLC director. Program electives taken abroad are transferred back as IB 304309 or IB 404-409.

Experiential Requirements: This major requires a study-abroad experience in a country of the student's language of study, and an internship. Study abroad typically occurs 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 director. In addition, BPD 490 (0 credit) must be completed for the internship requirement of the program. Although the required internship can be taken while abroad or in the U . S., students are encouraged to find one while abroad. Note that many study-abroad programs require that students have a GPA of 2.5 or higher. Students should be sure to speak with the director of the program.
301. CULTURE AND CHANGE 3 cr. Prerequisites: EC 201-201. 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.
304. ISSUES IN INTERNATIONAL ECONOMICS I 3 cr. Prerequisite: determined by study-abroad university. One of 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 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 transfer back as this course. Covers fundamental issues in international finance.
306. ISSUES IN INTERNATIONAL FINANCE I 3 cr. Prerequisite:
determined by study-abroad university. One of 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 transfer back as this course. Covers fundamental issues in international finance.
307. ISSUES IN INTERNATIONAL MANAGEMENT I 3 cr. Prerequisite: determined by study-abroad university. One of 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 transfer back as this course. Covers fundamental issues in international finance.
308. ISSUES IN INTERNATIONAL MARKETING I 3 cr. Prerequisite: determined by study-abroad university. One of 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 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 three pre-approved electives to be taken during the required study-abroad semester. Specific course will be titled by study-abroad university but transfer back as this course. Covers basic issues in international business environments.
404. ISSUES IN INTERNATIONAL ECONOMICS II 3 cr. Prerequisite: determined by study-abroad university. One of 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 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 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 transfer back as this course. Covers advanced issues in international business.
406. ISSUES IN INTERNATIONAL FINANCE II 3 cr. Prerequisite: determined by study-abroad university. One of 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 transfer back as this course. Covers advanced issues in international management.
407. ISSUES IN INTERNATIONAL MANAGEMENT II 3 cr. Prerequisite: determined by study-abroad university. Once of 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 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 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 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 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 transfer back as this course. Covers advanced issues in international business environments.
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 GPA 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. 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 outgoing University Core Curriculum while others fulfill requirements in the new Integrative 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 187 under Classics.

Generic: 100-109, 201-209, 301-309, 401-409
African: 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

109. THE GLOBAL COMMUNITY AND SOCIAL JUSTICE 3 cr. Focuses on issues of "deculturalization," colonization, diversity, oppression, and poverty that impact daily lives in communities around the world; special emphasis on developing nations. Parallel studies of same issues with regard to immigrants and other marginalized populations in the U.S. Students acquire communicative and cultural skills necessary to promote social justice in a global environment.
110. 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 and graphic novels), high culture and mass culture.


#### Abstract

122. JAPANESE CULTURAL ART FORMS 1 cr. each 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. 122D INTERMEDIATE IKABANA 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, C, or D) may be repeated for up to 4 credits.


128. CHINESE CULTURE AND SOCIETY 3 cr. Introduction to China, including its peoples, customs, cultures, history, geography, cities, demographics, economy, languages, and government. (Does not meet Core language requirement.)
129. 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.
130. 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. Novels and epistolary literature; media; class discussion; individual and paired projects.
131. 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.
132. ITALIAN WOMEN AND SOCIETY 3 cr. The shift in social, political, and economic roles of women in $20^{\text {th }}$-century Italy. Focus on major Italian women writers and films that depict these changes.
133. ITALIAN LITERARY PARKS 3 cr . The relationship between writing and the writer's homeland. Focuses on major Italian writers and their literary, physical, and emotional portrayal of their place of origin.
134. 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 cultureseither 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

202. 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.
203. 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.
204. MASTERPIECES OF WORLD LITERATURE 3 cr. Survey of translated literary works by authors from one or more cultures/populations involving any time and period and one or more literary genres(s).
205. 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.
208. FOOD FOR THE SOUL AND SOUL FOOD: THE ROLE OF FOOD, FAMILY, AND FEASTING ACROSS HUMAN EXPERIENCE 3 cr. Analysis of fiction and non-fiction as well as dramatic and documentary films that deal with food as it relates to family structures and relationships, foreign and domestic ethnic identity, and religion/spirituality. Exploration of the ethics of the globalization of food production.
209. FOOD IN FILM AND CULTURE: THE GLOBAL GENDERED TABLE
$\mathbf{3} \mathbf{~ c r}$. Viewing and discussion of feature films and documentaries that deal with 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.
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.
230. SHORT FICTION OF THE NINETEENTH CENTURY: RUSSIAN, SLOVAK, CZECH 3 cr. Survey of translated short stories and/or novellas from these Slavic peoples depicting their $19^{\text {th }}$-century society, history, and culture. Students discuss and reflect on the human experience in a non-American context that affects their own understanding of a global and diverse viewpoint.

## 231. SHORT FICTION SINCE 1900: RUSSIAN, SLOVAK, CZECH 3 cr.

 Survey of translated short stories and/or novellas from these Slavic peoples since 1900, depicting their recent society, history, and culture. Students discuss and reflect on the human experience in a non-American context that affects their own understanding of a global and diverse viewpoint.261. NARRATING ITALIAN FOOD AND WINE 3 cr . Study of the history of the metaphor of food and wine and their presence in literary, cultural, and artistic representations.
262. MICHELANGELO AND VITTORIA COLONNA 3 cr. The relationship between the poetry of Vittoria Colonna and the poetry and art of Michelangelo.
263. ROME AND THE WORD OF WONDER: IGNATIUS'S SPIRITUAL
EXERCISES IN BAROQUE LITERATURE, ART, AND MUSIC 3 cr. Study of the imagination in Ignatius's Spiritual Exercises and its reception in Baroque literature, art, and music. Includes an intensive, on-site learning tour. Travel fee required.

## 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 cultureseither 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

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 cultureseither 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 Studies (IT)

## Professor: S. Casciani; Associate Professor: L. Ferri

Courses in Italian Studies are offered by the Department of Classical and Modern Languages and Cultures. A combination sequence of courses in Italian Studies leads from competence in basic Italian language skills to a thorough understanding of the language, as well as an interdisciplinary approach to Italian culture and literature.

The Italian language is spoken throughout the world, in Europe, North and South America, Africa, and Australia. Italy is an industrially and economically advanced nation that exports to the U.S. as well as other countries. For example, in Australia, Italy remains a strong buyer of Australian primary product, and Australia is a consistent buyer of Italian technology and design. Furthermore, a significant number of Italian companies have branches in China and throughout Europe. Italians and the Italian language have made a distinctive contribution to art, architecture, cuisine, music, science, literature, film, and theatre. The study of Italian enhances students' enjoyment and appreciation of these areas.

Studying Italian at JCU is beneficial for students of all majors, thanks to the presence of about 60 Italian companies in the U.S. and Ohio. For example, Luxottica in Cincinnati is a leader in premium fashion, luxury, and sports eyewear.

Many graduate schools require the knowledge of at least one foreign language, and knowing how to speak Italian opens opportunities for students across the globe. All students are strongly encouraged to study in Italy through one of the many short- or long-term JCU-sponsored programs such as JCU at Vatican City (a semester-long program in fall), the Summer Institute in Italy, or the spring break field trip in Italy (offered as part of an on-campus course).

All courses are taught in Italian, unless otherwise noted.
Students who are interested in a self-designed major or minor in Italian Studies should consult with the coordinator of the Italian Studies program and/or the department chair. (Permission of the associate dean of the College of Arts and Sciences is also required.)
101. BEGINNING ITALIAN I 3 cr. Introduction to Italian language and culture; 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. For students with little or no previous study of Italian or by placement test.
102. BEGINNING ITALIAN II 3 cr. Prerequisite: IT 101 or equivalent or by placement test. Amplification of language skills in a cultural context. Added emphasis on reading and writing.
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. ITALIAN IN REVIEW I, II 3 cr. each. Prerequisite: IT 102 or equivalent, or by placement test; IT 201 or equivalent prerequisite for IT 202. Review of beginning Italian; study of authentic materials dealing with Italian culture. 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, computerassisted instruction.
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. ITALIAN CONVERSATION 3 cr. Review of Italian with a focus on building oral skills through exposure to various media, including music, television, film, Internet, and print. Development of communicative competence through oral practice and use of conversational strategies and techniques.
302. WRITING AND CREATIVITY 3 cr. Prerequisite: IT 201 or IT 202 or IT 301. Development of writing ability in Italian through exercises that expand the imagination, using creative writing games and exercises. Students and instructor rely on reading as well as writing, talking, thinking, and offering feedback on the written word. Computer technology is frequently utilized in the development of different styles of writing.

## 304. ITALIAN CULTURE THROUGH THE ARTS AND MUSIC 3 cr.

Prerequisite: IT 202 or equivalent. Study of Italian literature and visual and other arts (architecture, painting, sculpture, music, and opera); representative sampling of works from various literary periods.
306. ITALIAN FOR BUSINESS 3 cr. Prerequisite: IT 202 or 301, or 302, or equivalent. No previous study of business expected. Multimedia introduction to the Italian business world and ethics. Role-plays, simulation of business interactions, and analysis of authentic business documents help students prepare for employment in an Italian-speaking country. Students have the option to take an exam to receive the Certificazione di Italiano come Lingua Straniera according to the level of their linguistic ability.
307. THE MEDIA AND POPULAR CULTURE IN ITALY 3 cr. Prerequisite: IT 202 or 301, or 302, or equivalent. Representative sampling and comparative analysis of television, radio, music, cinema, and the press, as reflected in popular culture.

## 310. ITALIAN ADVANCED CONVERSATION THROUGH CINEMA 3

cr. Prerequisite: IT 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 Italian; films in Italian with English subtitles.

## 315. ITALIAN LITERATURE AND CULTURE: THE ART OF

INTERPRETATION 3 cr. Prerequisite: IT 202, or 301, or 302, or equivalent. Introduction to Italian literature and culture through close critical readings of the principal literary forms, as well as oral interpretations: poetry, drama, and prose.
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.
402. ADVANCED ITALIAN GRAMMAR, SYNTAX, AND COMPOSITION

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.
410. SENIOR CAPSTONE IN ITALIAN (SENIOR THESIS) 3 cr. Independent research project chosen in consultation with a capstone advisor. The project should reflect both the student's interest in Italian and the courses $\mathrm{s} /$ he has taken to fulfill the major. Student will produce a written thesis and also give an oral presentation to the Italian faculty.
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. Focuses 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

The program in Japanese is offered by the Department of Classical and Modern Languages and Cultures. In this 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 beginning, intermediate, and advanced levels. Independent study courses are available to students who have completed advancedlevel courses. Students are also encouraged to participate in study-abroad programs and should consult with the coordinator of the Japanese language program and the Center for Global Education early on.

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.

Students are strongly encouraged to explore the East Asian Studies interdisciplinary major-minor program described on page 219. Students who may be interested in a self-designed minor in Japanese language should consult the coordinator of the Japanese language program as well as the CMLC department chair. (Permission of the appropriate associate dean of the College of Arts and Sciences is also required.)
101. BEGINNING JAPANESE 13 cr. Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computerassisted instruction. For students with little or no previous study of Japanese or by placement test. (Fall)
102. BEGINNING JAPANESE II 3 cr. Prerequisite: JP 101 or equivalent or by placement test. 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 or by placement test. Further development of the four language skills for communication in a cultural context; expansion 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; expansion 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 of Japanese at the high-intermediate/advanced level. 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: G. Compton-Engle (Chair); Associate 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 183. For courses in Greek, see page 297.
101. BEGINNING LATIN I 3 cr. For students with little or no previous exposure to Latin or by placement test. Introduction to the language of the Romans through study of the fundamentals of Latin grammar, syntax, and vocabulary. Attention paid to Latin roots of English vocabulary. Acquisition of reading skills through the novice-mid level.
102. BEGINNING LATIN II 3 cr. Prerequisite: LT 101 or equivalent or by placement test. Continued study of Latin grammar and syntax, including the fourth and fifth declensions, passive voice, and participles. Acquisition of reading skills through the intermediate-low level.
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. INTERMEDIATE LATIN 3 cr. Prerequisite: LT 102 or equivalent or by placement test. Continued study of Latin grammar and syntax, including the uses of the subjunctive. Acquisition of reading skills through the intermediate-mid level.
232. INTRODUCTION TO LATIN LITERATURE 3 cr . Reading from a selected author, such as Caesar or Vergil.
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.
350. LATIN PROSE OF THE ROMAN REPUBLIC 3 cr. Readings in Latin from selected prose authors of the Roman Republic, such as Cicero, Caesar, or Sallust. Includes a Latin composition component. May be repeated with another author. (Fall)
355. LATIN POETRY OF THE ROMAN REPUBLIC 3 cr. Readings in Latin from selected poets of the Roman Republic, such as Plautus, Terence, Lucretius, or Catullus. May be repeated with another author. (Spring)
360. LATIN PROSE OF THE ROMAN EMPIRE 3 cr. Readings in Latin from selected prose authors of the Roman empire, such as Livy, Petronius, Tacitus, or Pliny. Includes a Latin composition component. May be repeated with another author. (Fall)
365. LATIN POETRY OF THE ROMAN EMPIRE 3 cr . Readings in Latin from selected poets of the Roman Empire, such as Vergil, Horace, Ovid, or Juvenal. May be repeated with another author. (Spring)
370. LATIN LITERATURE OF LATE ANTIQUITY 3 cr. Readings in Latin from writers of the later Roman Empire onward, such as Augustine or medieval authors. May be repeated with another author.
375. TOPICS IN LATIN LITERATURE 3 cr . Readings in Latin from a selected theme in Latin literature, such as love poetry, invective, or letters. May be repeated with another topic or 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. May be repeated with a different topic.
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)

## Director: K. O'Dell

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 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.

## Program Learning Goals in Leadership Development.

Students will:

1. Possess a conceptual understanding of leadership theory and practices.
2. Develop awareness of the personal attributes that impact their strategies and abilities for influencing others.
3. Execute and reflect on a significant leadership experience.
4. Understand leadership in various contexts as well as the role of change.

Minor Requirements<br>Leadership Development Minor: Total of 18 credit hours.<br>Leadership Theory courses (5 credit hours) Required: LP 101, 102, 135<br>Leadership Laboratories (4 credit hours) Required: LP 301, 302, 303, 304<br>Leadership Competence Course - Ethics (3 credit hours) One from: COMM 305; EPA 435; PL 280, 305, 310, 311, 312, 315, 316, 368; PS 471; SC 435; TRS 260, 261, 264, 361, 362, 363, 367<br>Leadership Competence Course - Communication (3 credit hours) One from: COMM 205, 208, 210, 242<br>Leadership Legacy Project (3 credit hours) Required: LP 401, 402, 403

101. INTRODUCTION TO LEADERSHIP 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. LEADERSHIP IN CONTEXT 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.
103. LEADERSHIP AND SOCIAL JUSTICE 3 cr. Establishes a framework for understanding social justice issues and the roles leaders have in either alleviating or furthering injustices. Explores justice-related events and trends throughout history and in more recent years in relation to diverse populations, using a lens of ethical decision- making.
104. 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.
105. INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised study on special topics. Must be approved prior to registration.
106. PERSONAL LEADERSHIP ATTRIBUTES 1 cr. 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 toward stated goals.
107. VISION AND IDENTITY 1 cr . 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 to be confident in doing so.
108. GROUP DYNAMICS 1 cr . 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.
109. STRATEGIC DECISIONS 1 cr. How to clearly define a problem or issue, separate strategy from tactics, and propose a reasonable strategic intent.
110. EXPERIENCES IN LEADERSHIP AND SOCIETY 1 cr. Prerequisite: participation in the Leadership Scholars Program or permission of chair. Includes three to five meetings during the semester to discuss leadership concepts and a leadership 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.
111. LEADERSHIP PROJECT PLANNING 1 cr. Prerequisites or corequisites: LP 301 and LP 302. Part of the three-credit capstone experience requiring students to plan, implement, and evaluate a substantive project that will have a lasting impact on John Carroll or the larger community. In LP 401 students plan their project under instructor supervision. Strongly recommended as a senior experience.
112. LEADERSHIP PROJECT IMPLEMENTATION 1 cr. Prerequisite: LP 401. Part of the three-credit capstone experience requiring students to plan, implement, and evaluate a substantive project that will have a lasting impact on John Carroll or the larger community. In LP 402 students implement their project under instructor supervision. Strongly recommended as a senior experience.

## 403. LEADERSHIP REFLECTION AND PORTFOLIO PRESENTATION

1 cr. Prerequisites or corequisites: LP 402. Part of the three-credit capstone experience requiring students to plan, implement, and evaluate a substantive project that will have a lasting impact on John Carroll or the larger community. Provides students the opportunity to learn about their leadership capabilities through reflection on their capstone experience.
440. LEADERSHIP SCHOLARS EXPERIENCE 1 cr. Prerequisite: participation in the Leadership Scholars program. As a capstone project for the program, students research and investigate local, regional, and national leaders who are in their future professional field. The research and interviews culminate in a presentation during the Celebration of Scholarship in the spring of the senior year.

# Management and Human Resources (MHR) 

Professors: W. N. Bockanic, C. A. Watts (Chair), R. A. Giacalone; Associate Professors: M. P. Lynn, R. T. Grenci, S. J. Allen, R. F. Miguel; Assistant Professors: A. M. Dachner, B. M. Saxton, S. Astrove, D. Winkel

Talent management is a primary concern of today's employers. Through projectbased learning and experiential exercises, students majoring in Management and Human Resources (MHR) gain an intensive understanding of the concepts and techniques needed to effectively manage employee talent, such as how to strategically acquire, cultivate, and utilize an organization's human resources. MHR students obtain knowledge related to the recruitment, selection, training and development, and retention of organizational human capital, along with employee performance management, workforce planning, compensation administration, the facilitation of organizational change, and the application of employment law. Moreover, the MHR major prepares students for managerial and leadership positions by developing student skills related to relationship management, leadership, career management, creative problem-solving, critical thinking, and verbal and written communication. The 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.

The competencies developed and reinforced throughout the MHR curriculum enhance career readiness among students. Students will graduate with the management and leadership abilities necessary for achieving excellence in their chosen profession regardless of the industry. This major prepares graduates for positions in any business, government, or non-profit enterprise. Past students have pursued successful careers as human resource specialists or generalists, talent management coordinators, bank managers, recruiters, salespeople, management trainees, benefits administrators, healthcare administrators, and compensation analysts, among others. MHR-related careers involve a shared emphasis on leading employees and coworkers toward common goals, worker empowerment and productivity, and organizational excellence.

## Program Learning Goals in Management and Human Resources.

The mission of the Management and Human Resources (MHR) major is to develop confident, well-rounded, lifelong learners, who use ethical reasoning, human resource management expertise, and evidence-based resources to make decisions that positively contribute to their organizations and society.

The MHR major learning goals are aligned with the competency model of the Society for Human Resource Management (SHRM). SHRM is the leading professional Human Resource organization; thus, achieving the MHR learning goals ensures that our students are attaining the knowledge and skills that employers are looking for in job candidates. The MHR major learning goals are:

- Knowledge of critical management and human resource functions, including strategy, recruitment, staffing, employment law, training and development, leadership, and employee and labor relations.
- Ability to build trusting relationships with project stakeholders.
- Ability to apply creative problem-solving to address MHR needs.
- Ability to demonstrate behaviors consistent with organizational or group objectives.
- Ability to plan for and manage one's career by assessing and reflecting on one's personal characteristics.
- Skills required to analyze HR challenges in order to offer solutions based on best practices and research.

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Major Requirements
Major in Management and Human Resources: 65 credit hours, as
described below.
Business Core: }41\mathrm{ credit hours, including MHR 461.
Major Courses: }24\mathrm{ credit hours. MHR 325, 376, 395, 453, 470, 473, 483, and
495.
Professional Experience: Majors must have relevant professional work or volunteer experience prior to graduation. This requirement must be satisfied by competing Boler Professional Development (BPD) 490.
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## 325. ORGANIZATIONAL BEHAVIOR AND MANAGEMENT 3 cr .

Prerequisite: EC 210 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 in application to organizational life. Topics may include ideas of the classic theorists, management functions, motivation, leadership, group dynamics, global management behavior, and organizational change.
352. HUMAN RESOURCE MANAGEMENT 3 cr . 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.
361. GLOBAL MANAGEMENT 3 cr. Prerequisites: AC 202, EC 201-202, and MHR 325, or permission of chair. Aspects of global management, emphasizing on the role of the multinational company (MNC). Focuses on 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 MHR 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 evaluate their own entrepreneurial tendencies and future venture creations.
376. COMPENSATION 3 cr. Prerequisite: MHR 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.
395. LEADERSHIP SKILLS DEVELOPMENT 3 cr. Prerequisite or corequisite: MHR 325. An experiential, competency-based course designed to help students become more aware of a wide range of managerial and leadership concepts. Also focuses on measuring skill around topics such as ethical decision-making, problem-solving, negotiation, conflict management, and presentation skills.
405. SEMINAR IN MANAGEMENT 3 cr. Prerequisites: MHR 325 and/or as announced. Study of current issues in management, leadership, or entrepreneurship not covered in depth in other department courses. Specific topic, method of presentation, and student requirements designated by the seminar leader.
453. EMPLOYEE AND LABOR RELATIONS 3 cr. Prerequisite or corequisite: MHR 352 or PS 359, or permission of chair. Study of key employment relationships in union and non-unionized environments. Topics include work place conflict resolution, performance management, and employee recognition; institutional aspects of collective bargaining and contract administration; theoretical and experiential perspectives on negotiation; and fair employment practices.
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 Constitutions, sources of law (political and institutional), consumer law, and law in international business.
463. BUSINESS LAW 3 cr. Prerequisite: senior standing. Focuses on the nature, purpose, and functions of law; emphasis on its relation to business. Contract law, agency, business structures (partnerships, corporations), bankruptcy, debtors' and creditors' rights, secured transactions, and securities regulation.
470. STAFFING 3 cr. Prerequisite: MHR 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.
473. TRAINING AND MANAGEMENT DEVELOPMENT 3 cr. Prerequisite or corequisite: MHR 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. Students create and conduct a training program.
480. SMALL AND MEDIUM BUSINESS ANALYSIS 3 cr. Prerequisites: FN 312, MK 301, SCM 301, and MHR 364. 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.
483. PROJECT MANAGEMENT 3 cr. Prerequisite or corequisite: SCM 301. Study of 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.

## 495. ADVANCED MANAGEMENT AND HUMAN RESOURCES 3 cr.

Prerequisites or corequisites: MHR 379, 453, 470 and senior standing, or permission of chair. Advanced topics in MHR management, such as MHR strategy, organizational development, leadership, ethics, sustainability, and trends in MHR. Strategies for self-management, team building, leadership, and delegation.
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 management and 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.
499. STRATEGIC MANAGEMENT 3 cr. Prerequisites: FN 312 , MK 301, MHR 352 (or MHR 325 or MN 325), SCM 301 (or BI 326), BPD 201, 202, 301, and senior standing. Presentation of strategic management theory and practice. Strategic and operating problems are assessed and competitive solutions recommended. Requires general management perspective, global business views, knowledge of functional business disciplines, computer-based analysis, and management presentations.

# Marketing(MK) 

Professors: J. H. Martin, P. R. Murphy, Jr., A. R. Miciak (Dean); Associate Professor: T. M. Facca-Miess; Assistant Professors: Y. Wu, A. Randrianasolo

The marketing program focuses on global, analytical, and innovative marketing leadership. Following the Jesuit tradition of the University, we emphasize throughout our program how to engage in marketing activities that a) respect the dignity of the human person and b) are directed by a sense of justice for the greater good. 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.

Marketers create value for consumers. They do this by working collaboratively with consumers to determine their needs, creatively designing products and services that can satisfy those needs, identifying the most effective channel for delivering the products and services to buyers, pricing those offerings to provide a value-driven experience, and communicating with buyers about the value of those products and services. Marketers design and manage this process in a way that returns value to the organization. In our program, the activities of marketers are taught throughout the four required marketing courses (Applied Consumer Insights, Customer Engagement Strategies \& Tactics, Market Analysis and Strategic Value Co-Creation), and students can learn in-depth about specific marketing activities in their four electives.

Increasingly, buyers are located all over the world, which means that a global perspective in marketing is an absolute must. In addition, this global perspective represents myriad opportunities for our students to use their marketing skills for addressing social challenges for the greater good on a global stage. Students learn the fundamentals of a global perspective in each of the required courses. Students interested in a career that includes global aspects of marketing should take Multinational Marketing and Microenterprise Development in Honduras as two of their electives. A study abroad experience is strongly recommended for students interested in an emphasis on global marketing. Students interested in these exciting career opportunities may also want to minor in a language or a global study area of international culture.

Innovation will drive new business creation and economic development in the future. Marketing is at the forefront of innovation, and our students can learn about innovation in order to acquire the skill sets necessary for taking a leading role in fostering innovation in an organization or starting their own new venture. Fundamentals of innovation are taught in each of the four required classes in the marketing major. Students interested in careers that include innovation processes should take the Innovation class, the Advanced Data-Driven Decision Making
class, and the Microenterprise Development class as three of their electives. Students interested in these career opportunities may also want to minor in entrepreneurship.

One of the biggest changes in the field of marketing is the availability of massive amounts of data that can be used to drive marketing decisions. Expertise in marketing analytics is highly valued and sought after by employers. All marketing students take the Market Analysis class that stresses the analysis of market research data for developing marketing strategy. Students interested in a career that emphasizes analytics should also take Digital Marketing Analytics, Advanced Data-Driven Decision-Making, and the Digital Marketing Competition course as three of their electives. Students pursuing this career path may also want to minor in statistics or data science.

Marketing has evolved to emphasize the engagement of customers through the use of digital marketing tools. All students in our program take courses on Applied Consumer Insights, Customer Engagement and Strategic Value Co-Creation, all of which emphasize customer engagement in a digital world. Students interested in a career in digital marketing can also take Digital Marketing Analytics, Visual Communication in Digital Marketing, and the Digital Marketing Competition course as three of their electives.

A wide range of exciting careers are included in the field of marketing:

- For students interested in the global side of marketing, careers may include international market development, digital content management, sales in business markets, product and brand management, international marketing research, non-profit and social marketing, and international market analysis.
- For students interested in the innovation side of marketing, careers may include new product/innovation management, social innovation, social entrepreneurship, traditional entrepreneurship, product and brand management, digital marketing, marketing research, marketing analytics, customer engagement, and promotion management.
- For students interested in the analytics side of marketing, careers may include digital analytics, marketing analytics, business analytics, marketing research, and account management (sales) for agencies.
- For students interested in the digital side of marketing, there are countless opportunities to work in content management, digital analytics, website design and management, non-profit and social marketing, customer engagement, and promotion management.

These career areas represent abundant opportunities in marketing that are rapidly growing in numbers. Most of them are paths to executive levels of management in organizations.

## Program Learning Goals in Marketing.

Students will have:

1. A command of the primary marketing content areas, including the marketing environment, segmentation, targeting, positioning, the marketing mix, and socially responsible marketing.
2. The skills necessary to identify and solve problems in marketing.
3. The ability to navigate the complexities of marketing problems in the dynamic market environments of for-profit and non-profit organizations.
4. The ability to apply data-driven decisions to address marketing problems and develop effective marketing strategies to sustain the success of an organization. This includes the following:
a. The ability to identify and analyze marketplace needs.
b. The ability to recognize organizational resources that can fulfill marketplace needs.
c. The ability to develop marketing strategy to effectively connect organizational resources to marketplace needs.

## Major Requirements

Major in Marketing: 68 credit hours as described below.
Business Core: 41 credit hours, including MHR 461.
Major Courses: 27 credit hours. PS 101, MK 302, MK 309, MK 402, MK 495; and four courses chosen from the following: SCM 328, SCM 440, MK 361, MK 362, MK 370, MK 381, MK 382, MK 405, MK 410, MK 481, MK 482, MK 498, and either CO 315 or CO 415. 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 BPD 490.
301. MARKETING PRINCIPLES 3 cr. Prerequisite: Sophomore standing with a minimum of 25 credit hours. Introduces students to the field of marketing. Provides an overview of marketing concepts and strategies critical to value-driven marketing. Emphasis on how to develop, promote, distribute, and price an organization's offerings in a dynamic economic, social, political, and international environment. Ethical issues are also examined.
302. APPLIED CONSUMER INSIGHTS 3 cr. Prerequisite: MK 301, PS 101. Provides coverage of consumer behavior theories, frameworks, concepts, and tools to understand consumers and uncover insights relevant for business and policy. Students learn to generate original consumer insights to create real-world marketing recommendations. Topics drawn from psychology, social psychology, sociology, cultural anthropology, and behavioral economics. Offered spring semester only; should be taken in junior year.

## 309. CUSTOMER ENGAGEMENT STRATEGIES AND TACTICS 3 cr.

Prerequisite: MK 301. Explores the many opportunities for, and challenges of, engaging with customers through the ever changing technological and economic environment. Emphasis on examining and using a variety of social media platforms and tools in developing and implementing strategic "inbound" marketing initiatives that are designed for engaging and collaborating with users.
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.

## 362. MICROENTERPRISE DEVELOPMENT IN AN IMPOVERISHED

COUNTRY 3 cr. Frames the Boler Honduras Project, which focuses on developing entrepreneurial and life skills among the teenage children of the Casa Noble Transition Home in Honduras. Students learn about international entrepreneurship in poverty conditions, how to apply a microenterprise business model framework in international settings, and how to analyze the economic, social and cultural milieu of an impoverished country. Includes a trip to Honduras during spring break. Offered spring semester only.

## 370. VISUAL COMMUNICATION IN DIGITAL 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. 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.
381. DIGITAL MARKETING ANALYTICS 3 cr. Prerequisite: MK 301. Focuses on the analytics behind planning and evaluating digital marketing efforts, now heavily emphasized in the inbound marketing process. Topics include SEO, building dashboards, website analytics, social media analytics, search analytics, audience analytics, content analytics, engagement analytics, mobile analytics, ROI, data visualization, KPIs, and translating analytical insights into action. Offered fall semester only.

## 382. ADVANCED DATA-DRIVEN DECISION-MAKING IN MARKETING

3 cr. Prerequisites: BI 200; EC 210 or other comparable statistics class. Develops skills to translate a variety of data types into conceptual insights, and exposes students to "big data" and the analytical process and tools to manage and exploit the data. Topics include data types and sources, constructing queries, data analysis, predictive analytics, and the reporting and presentation of analyses.
402. MARKET ANALYSIS 3 cr. Prerequisites: MK 301; AC 202; EC 210 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 department courses. Specific topic, method of presentation, and requirements designated by the seminar leader.
410. INNOVATION 3 cr. Prerequisites: MK 301; some familiarity with Excel spreadsheets. Project-based exploration of tools used to create and plan market innovations. Topics include idea generation, strategy development and the value proposition, planning and implementation of an innovation, and quantitative models for forecasting future performance of an innovation. Offered fall semester every other year.
481. DIGITAL MARKETING COMPETITION 3 cr. Prerequisites: MK 301 and either MK 309 or MK 381 or MK 382. An opportunity to learn and apply marketing concepts by participating in the Google Online Marketing Challenge. Students create online marketing campaigns using Google AdWords and form teams to develop and run an online advertising campaign for a real business or non-profit organization. Students can also earn AdWords Certification. Offered spring semester only.
482. MARKETING RESEARCH 3 cr. Prerequisites: MK 301; EC 210 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 or research method, the design of research studies, and the collection, analysis, and presentation of data from original and secondary sources as related to providing information for marketing problem solving. Offered every other fall semester.
495. STRATEGIC VALUE CO-CREATION 3 cr. Prerequisites or corequisites: MK 302, MK 309, and MK 402. Capstone marketing course in which students work with outside organizations to 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. Offered spring semester only; should be taken in senior year.
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 department guidelines established for such study.


## Mathematics (MT)

Professors: R. J. Kolesar, P. L. Shick (Chair), M. Kirschenbaum, B. K. D'Ambrosia, B. Foreman; Associate Professors: D. A. Norris, P. B. Chen; Assistant Professors: P. E. Rinker, W. Marget, R. Fang

## Major Programs

The Department of Mathematics and Computer Science offers two major programs in mathematics. The department also offers computer science and data science programs described in separate sections on Computer Science (CS) and Data Science (DATA).

The major in Mathematics leading to the bachelor of science degree prepares students for immediate employment after completion of the degree or for graduate study. It is designed to give students a broad background in all the major areas of mathematics, while remaining flexible enough to allow students to tailor the program to meet their career objectives. Graduates have entered graduate programs in mathematics, statistics, and operations research/supply chain management at many leading universities, while others have entered into a variety of employment situations-as actuaries, statisticians, analysts, computer programmers, systems analysts and teachers. Other graduates have entered professional schools in law, medicine, and business.

The major in Teaching Mathematics leading to the bachelor of arts degree 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 135 or $133 / 134,162,175,221,241$, and 251 , plus three additional credits of MT, CS or DATA courses.

For Early Childhood (EC) licensure, the mathematics curriculum content courses are MT 175 and 176.

In all cases, the content-area courses for licensure (mathematics, computer science, and/or data science) must be completed with a minimum average of 2.7 and a minimum grade of C in each course.

## Program Learning Goals in Mathematics.

Students will:

1. Develop an in-depth integrated knowledge in algebra, geometry, and analysis.
2. Be able to communicate mathematical ideas and present mathematical arguments both in writing and orally using proper use of mathematical notation and terminology.
3. Be able to distinguish coherent mathematical arguments from fallacious ones, and to construct complete formal arguments of previously seen or closely-related results.
4. Be able to give complete solutions to previously seen or closely-related problems.
5. Be able to use definitions, theorems, and techniques learned to solve problems they have not seen before.
6. Be able to synthesize material from multiple perspectives and make connections with other areas.
7. Be able to use technology appropriate to each topic.


## Major and Minor Requirements

Major in Mathematics: 45-46 credit hours.

1. Calculus stream ( $12-14$ cr.): MT 135 or MT 133-134; MT 136; MT 233.
2. Foundations for Applied Mathematics (12-13 cr.): MT/DATA 229; MT 234; MT 242; CS 128-128L or CS 150.
3. Fundamentals of Pure Mathematics (9 cr.): MT 301; MT 431; MT 441.
4. Mathematics Capstone (3 cr.): MT 469 or MT 491.
5. Electives ( 9 cr .): See list below.

A comprehensive examination is required.
Major in Teaching Mathematics: 36 - 37 credit hours (plus Education courses).

1. Calculus stream ( $12-14$ cr.): MT 135 or MT 133-134; MT 136; MT 233.
2. Foundations for Applied Mathematics (9-10 cr.): MT/DATA 229; MT 242; CS 128-128L or CS 150.
3. Fundamentals of Pure Mathematics (9 cr.): MT 301; MT 431; MT 441.
4. Euclidean \& Non-Euclidean Geometry (3 cr.): MT 450
5. Mathematics Capstone (3 cr.): MT 469

Required Support Sequence: 42 credit hours. ED 100, 202, 253, 255, 301, 337, 350, 386, 405C, 415, 427, 427L, 444C.

## A comprehensive examination is required.

Minor in Mathematics: 23-24 credit hours.

1. Calculus courses: MT 135 or MT 133-134; MT 136; MT 233 or MT 234.
2. Elementary Linear Algebra (MT 242) (3 cr.);
3. Methods in Pure Mathematics (MT 301) (3 cr.);
4. Electives ( 6 cr .): See list below.

Minor in Statistics \& Analytics: 18 - 20 credit hours. DATA 100; DATA 260/MT 223; DATA/MT 422 or approved internship; DATA/MT 424; two of the following application area elective courses: BI 371; BL 224; 240; 444; CH 261/263; 441/443; CS 307; 322; 350; DATA/MT 421; EC 409; 410; ED 201; EPA 230; 340; 407; 430; MK 402; MT 242; PO 300; PS 301/301L; 401; 435; SC 350; 351.

Minor in Actuarial Science: 30 credit hours. MT 135, 136, 225, 233, MT/DATA 229 (or other statistics course), MT/DATA 421, MT/DATA 424, and EC 201-202. These courses prepare the students for Exams P and FM of the Society of Actuaries, cover the required Foundational Quantitative content areas and provide the Validation by Educational Experience (VEE) for Applied Stats and Economics.

## List of Electives for B.S. in Mathematics and Minor in Mathematics:

421. Mathematical Statistics 3 cr. Prerequisites: MT 229, 233.
422. Operations Research 3 cr. Prerequisite: MT 301 or 271.
423. Advanced Calculus of Several Variables 3 cr. Prerequisites: MT 233, 301, or 271.
424. Introduction to Complex Analysis 3 cr. Prerequisite: MT 301 or 271 or permission.
425. Linear Algebra and Vector Spaces 3 cr. Prerequisite: MT 242; MT 301 or 271.
426. Euclidean and Non-Euclidean Geometry 3 cr. Prerequisite: MT 301 or 271 or permission.
427. Elementary Topology 3 cr. Prerequisite: MT 301 or 271.
428. Differential Equations and Dynamical Systems 3 cr. Prerequisites: MT 233, 234.
429. Theory of Numbers 3 cr. Prerequisite: MT 301 or 271.
430. History of Mathematics* 3 cr. Prerequisite: MT 301 or 271.
431. Combinatorics and Graph Theory 3 cr. Prerequisite: MT 301 or 271.
432. Special Topics cr. TBA.
433. Independent Study in Mathematics 1-4 cr. Prerequisites: consent of chair and instructor.
*Note: B.S. majors in Mathematics may take MT 469 either as an elective or as their capstone, but not both.
434. 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.
435. QUANTITATIVE ANALYSIS 3 cr . Introduction to the study of numbers and subsequent analysis of quantified data using mathematical techniques in studying problems in the context of various disciplines. Mathematical techniques include displaying and describing data, making statistical inferences from data, and building models by fitting functions to data.
436. ELEMENTARY STATISTICS (DATA 122) 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. Methods are illustrated in the context of quantitative research, with applications in disciplines such as sports, psychology, and social and natural sciences. Use of appropriate statistical software.
437. 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-IB 3 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.)
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.
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.

## 171. FOUNDATIONS OF EARLY CHILDHOOD MATHEMATICS 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.
175. FOUNDATIONS OF ELEMENTARY MATHEMATICS 3 cr. For students seeking licensure in Early Childhood Education or Middle Childhood Education with Mathematics concentration. Explores elements of mathematical thinkingreasoning and proof, problem-solving, pattern-finding-and their impact on elementary quantitative concepts and structure. Focus on the development of the real number system and its structure as utilized in Elementary Mathematics.
176. TOPICS IN EARLY CHILDHOOD MATH 4 cr. Prerequisite: MT 175 or chair permission. For students seeking licensure in Early Childhood Education. Continued exploration of mathematics taught in elementary school from an advanced standpoint. Topics include number theory, measurement, geometry, symmetry, statistics. Demonstrations of how various models-visual, verbal, physical, writing-are used to convey mathematical instruction in an elementary school setting.
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 (DATA 260) 3 cr. Prerequisite: DATA/MT 122 or DATA/MT 228 or DATA/MT 229 or EC 208. Power analysis, factorial and repeated measures, analysis of variance, nonparametric procedures, contingency tables, introduction to multiple regression. Use of appropriate statistical software.
224. ACTUARIAL MATHEMATICS 3 cr. Prerequisite: MT 135 or 130. Theory of interest: time value of money, annuities, and cash flow. Mathematical models of loans, bonds, general cash flows, and portfolios. Quantitative analysis of financial economics: derivatives, options, forwards, futures, swaps. Prepares students to take Society of Actuaries exam 2/FM.

## 228. STATISTICS FOR THE BIOLOGICAL SCIENCES (DATA 228) 3

cr. Exploratory data analysis, probability fundamentals, sampling distributions and the Central Limit Theorem, estimation and tests of hypotheses through onefactor analysis of variance, simple linear regression, and contingency tables using appropriate statistical software. Course content in biology context.
229. PROBABILITY AND STATISTICS (DATA 229) 3 cr. Prerequisite: MT
135. 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; exact, normal-theory, and simulation-based inference; use of appropriate statistical software. Methods are illustrated in the context of quantitative research, with applications in various disciplines.
233. CALCULUS AND ANALYTIC GEOMETRY III 4 cr. Prerequisite: MT 136. Calculus of vector-valued functions; partial differentiation; multiple, line, and surface integrals.
234. ELEMENTARY DIFFERENTIAL EQUATIONS 3 cr. Prerequisite: MT 136. A first course in ordinary differential equations. First order equations and applications, linear equations with constant coefficients, linear systems, Laplace transforms, numerical methods of solution.
241. NUMERICAL AND ALGEBRAIC CONCEPTS FOR MIDDLE SCHOOL MATHEMATICS TEACHERS 3 cr. Prerequisite or corequisite: MT 175. 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. How to communicate in the precise language of mathematics, make connections among mathematical systems, and construct valid mathematical arguments and proofs.
242. INTRODUCTION TO LINEAR ALGEBRA 3 cr. Prerequisite: MT 130 or MT 135. Matrix operations, systems of linear equations, vector spaces, subspaces, bases and linear independence, eigenvalues and eigenvectors, diagonalization of matrices, linear transformations, determinants and applications.

## 251. GEOMETRY FOR MIDDLE SCHOOL MATHEMATICS TEACHERS

$\mathbf{3}$ cr. Prerequisite: MT 135. 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. 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.
288. NETWORK ANALYSIS 3 cr . Introduction to the mathematical and computational theory of network analysis with applications in globalization studies and other social sciences. Fundamentals of graph theory and matrix algebra. Measures of networks, including concepts of centrality and structural balance. Study of large-scale structure of networks. Computational representation of and algorithms on networks. Independent student project.
299. SPECIAL TOPICS IN MATH 1-3 cr. Subject announced in schedule of classes.
301. METHODS IN PURE MATHEMATICS 3 cr. Prerequisite or corequisite: MT 136. Introduction to basic mathematical terminology and the techniques of abstract mathematics in the context of discrete mathematics. Topics include proof and logic, inductive and deductive reasoning, mathematical induction, sets, functions and relations, and counting principles.
399. INDEPENDENT STUDY IN MATHEMATICS 1-4 cr. Prerequisites: permission of chair and instructor. For the student seeking a research project under faculty supervision.
421. MATHEMATICAL STATISTICS (DATA 421) 3 cr. Prerequisites: DATA/ MT 229, MT 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 (DATA 422) 3 cr. Prerequisite: DATA 260/ MT 223 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.
424. APPLIED REGRESSION ANALYSIS (DATA 424) 3 cr. Prerequisite: DATA 260/MT 223 or chair permission. Multiple linear regression, collinearity, model diagnostics, variable selection, nonlinear models, logistic regression; use of appropriate statistical software.
425. OPERATIONS RESEARCH 3 cr. Prerequisite: MT 271 or 301. Linear programming, sensitivity analysis and duality, queuing theory, topics from networks, decision making, game theory, Markov chains, dynamic programming, and simulation.
431. INTRODUCTION TO REAL ANALYSIS 3 cr. Prerequisite: MT 233, 271 or 301. Rigorous mathematical treatment of the fundamental ideas of calculus: sequences, limits, continuity, differentiation, and integration.
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 301 or permission of department chair. Complex number plane, analytic functions, integration of complex functions, sequences and series, residue theorem, and evaluation of real integrals.
441. INTRODUCTION TO ABSTRACT ALGEBRA 3 cr. Prerequisite: MT 271 or 301. Groups, homomorphisms, permutations, quotient groups, rings, ideals, integral domains, fields, polynomial rings, and factorization.
442. LINEAR ALGEBRA AND VECTOR SPACES 3 cr. Prerequisite: MT 271 or 301; MT 242. Proof-based introduction to algebra of matrices, linear systems, abstract vector spaces, linear transformations, eigenvectors, and applications.
450. EUCLIDEAN AND NONEUCLIDEAN GEOMETRY 3 cr. Prerequisite: MT 271 or 301 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 or 301. 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.
468. THEORY OF NUMBERS 3 cr. Prerequisite: MT 271 or 301. Divisibility theorems, numbertheoretic functions, primitive roots, quadratic congruences and reciprocity, partitions.
469. HISTORY OF MATHEMATICS 3 cr. Prerequisite: MT 271 or 301. 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 or 301. 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.
491. SENIOR SEMINAR IN MATHEMATICS 3 cr. Prerequisites: MT 271 or 301 and senior standing. Culminating experience of the mathematics major, requiring students to demonstrate mathematical skills through common readings, class discussions, presentations, and written assignments.
499. INDEPENDENT STUDY IN MATHEMATICS 1-4 cr. Prerequisites: permission of chair and instructor. For the student seeking a research project under faculty supervision.

## Militiary Science (MS) (ARMY ROTC)

Professor: M. Johnson (Chair); Assistant Professor: J. McCluskey

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 NonCommissioned 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 their first 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 Cadet Initial Entry Training 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 Cadet Leadership 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 cover full tuition at the University. John Carroll currently waives standard room and board fees for scholarship cadets. Scholarships also include all required lab fees, the graduation fee, a book allowance of $\$ 1,200$ per year, and a \$300-\$500 per month subsistence during the school year (maximum $\$ 5,000$ 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, 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 consist of two essential parts - a baccalaureate degree, and at least one undergraduate course from each of the following designated fields of study: 1) written and oral communication skills; 2) U.S. military history. 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 requirements.

## 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 1 cr. Focuses on 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.
131. ADVANCED PHYSICAL CONDITIONING 1 cr. Builds on the student's knowledge of physical conditioning to increase physical fitness by increasingly challenging exercises building aerobic skills and endurance leading to enhanced physical fitness, including cardiovascular and respiratory fitness, weight control, and stress control.
132. LEADERSHIP IN PHYSICAL TRAINING 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 Readiness and Training method.
133. ADVANCED LEADERSHIP IN PHYSICAL TRAINING 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 Readiness and Training method.
198. BASIC COURSE INDEPENDENT STUDY 1-3 cr. Prerequisites: permission of chair; freshman or sophomore standing. Focuses on 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 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 include land navigation, marksmanship, map reading, drill and ceremony, physical training, water survival, health and fitness, combat orders, and preparation for summer training. ROTC cadre supervise the labs, which are planned and managed by the MS III students with command and control administered by MS IV students.
201. INNOVATIVE TEAM LEADERSHIP 2 cr. Corequisite: MS 299. Uses of ethics-based leadership skills to develop individual abilities and contribute to effective team-building. Focus on skill 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. Corequiste: MS 299. Introduces both the 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 1 cr. Prerequisite: permission of chair. 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 STDUY 1-3 cr. Prerequisites: permission of 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 or the Veterans' Affairs office with faculty credentials. Requires a paper.
299. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr. See the course description for MS 199.

## 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. 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 operations orders and plans and focus 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 training. Requires participation in semiweekly physical fitness and a weekend field training exercise, with weekend exercises offered for optional participation.
387. INTERNATIONAL PROGRAM (CULP) 1-3 cr. Prerequisite: consent of the department chairperson. In-depth application and study on a tutorial basis of military leadership, doctrine, and training directed by a member of the department or faculty with appropriate credentials. Students/cadets deploy as part of a team to a foreign area of operation in support of Cadet Command and U.S. State Department Office of Security Cooperation objectives. Cadets are immersed in an ideal environment within which to identify experience and practice Language, Regional Expertise and Culture (LREC) based on leadership skills necessary for $21^{\text {st }}$-century army officers. A paper is required.
389. INTERNSHIP 1-3 cr. Prerequisite: consent of the department chairperson. In-depth application and study on a tutorial basis of military leadership, doctrine, and training directed by a member of the department or appropriate faculty, and conducted with any U.S. Army unit worldwide. Cadets are attached to a regular Army unit for the duration of internship and deploy to their host units for integration at the company level with battalion-level leadership who serve as mentors. Credit is offered for attending military training schools.
398. CADET LEADERS INDEPENDENT STUDY 1-3 cr. Prerequisite: consent of the department chairperson. In-depth application and study on a tutorial basis of military leadership, doctrine, and training directed by a member of the department or other credentialed faculty. Independent study at Ft. Knox, Kentucky, where students/cadets will receive comprehensive application and evaluation of material taught in MS 301/302. A paper is required.

## 399. 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 ceremony, physical training, water survival; health and fitness, combat orders, formation, inspections, and preparation for the Cadet Advance Camp. Cadet leadership train and execute the lab, while MS IV cadets teach and coach all cadets. Faculty supervise and ensure currency and topical relevancy.401. DEVELOPING ADAPTIVE LEADERS 3 cr. Prerequisite: MS 302; corequisite: MS 499. Develops students' critical, creative, and systemic thinking skills through problem-solving and building their 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. Students analyze, evaluate, and instruct cadets at lower levels. Classroom and battalion leadership experiences are designed to prepare MS 401 cadets for their first unit of assignment. Requires participation in semiweekly physical fitness sessions and in one weekend exercise.
402. LEADERSHIP IN A COMPLEX WORLD 3 cr. Prerequisite: MS 401; corequisite: MS 499. Continues to build on the students' critical thinking skills through an in-depth exploration of the dynamics of leading in the complex situations
of current military operations. They also explore aspects of interacting with nongovernment organizations, civilians on the battlefield, and host nation support. Places significant emphasis on preparing cadets for their first unit of assignment. 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 semiweekly fitness sessions and one weekend exercise.
403. MILITARY SCIENCE LEADERSHIP SKILLS LAB 0 cr. Provides a practical application of the topics covered in class and is mandatory for all participating students. Topics consist of land navigation, marksmanship, map reading, drill and ceremony, physical training, water survival, health and fitness, combat orders, formations, inspections, and preparation for the Cadet Advanced Camp. Cadet leadership train and execute the lab, while MS IV cadets teach and coach all cadets. Faculty supervise and ensure currency and topical relevancy.


## Modern Languages (ML)

Courses in modern languages are offered by the Department of Classical and Modern Languages and Cultures. Designated as ML, this body of courses may include offerings on modern or classical languages not regularly taught at John Carroll.
101. BEGINNING MODERN LANGUAGE I 3 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 cr. Prerequisite: ML 101 or equivalent. Amplification of language skills. Emphasis on reading and writing.
198. BEGINNING INDEPENDENT STUDY 3 cr. Supervised independent study of language 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 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; expansion of vocabulary, idiomatic usage, and grammar. ML 201 or equivalent prerequisite for ML 202.
298. INTERMEDIATE INDEPENDENT STUDY 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 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.
398. INDEPENDENT STUDY 3 cr. Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
399. SPECIAL TOPICS 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: P. J. Metres, III (English); Advisory Committee: M. P. Berg (History), R. D. Clark (Sociology \& Criminology), E. Johnson (Biology), P. J. Lauritzen (Theology \& Religious Studies), J. M. McAndrew (History), M. J. Peden (Political Science), W. O. Simmons (Economics), D. Taylor (Philosophy), W. A. Wiedenhoft-Murphy (Sociology \& Criminology), J. Ziemke (Political Science)

The fundamental goal of the Peace, Justice, and Human Rights program is to equip students with the knowledge, skills, and creativity to seek justice and promote peace. It combines research and study with experiential and service learning to help students gain both a theoretical and empirical understanding of the challenges and possibilities of peacebuilding, conflict transformation, and social justice. PJHR is an interdisciplinary program and benefits from the diverse interests and rich experience of faculty members from several disciplines and departments. Consistent with Catholic social teaching that sees peace as inseparable from justice and the extension of human rights as a fundamental ethical obligation, PJHR also emphasizes the importance of political pluralism, cultural and religious diversity, ecological balance, and nonviolent conflict resolution and transformation.

The program prepares students to pursue careers in a wide number of fields, including law, mediation, advocacy, government service, non-profit work, ministry, and social work.

## Program Learning Goals in Peace, Justice, and Human Rights.

Students will:

1. Describe, explain, and critically analyze the complex and systematic nature of peace building, justice, and human rights.
2. Identify global, national, or local situations affected by violence, injustice, and oppression; explain their causes and consequences; and explore possible solutions.
3. Articulate a worldview that demonstrates concern for victims of violence, injustice, and/or human rights violations.
4. Apply this worldview to peace building; social justice, and human rights both on and off campus.

## Major and Minor Requirements

Major in PJHR: 36 credit hours.
Required courses: EN 231; HS 230, HS 231, HS 400, HS 410; SC 111.

## Additional courses:

One additional course (3 credit hours) at the 400 level, drawn from the list of PJHR-approved courses. To access the list, please go to http://sites.jcu. edu/pjhr/pages/courses/.

Six courses ( 18 credit hours), at least five of which must be taken at the 300-400 level, from the list of PJHR-approved courses.

Normally, these courses will be chosen from three different disciplines or departments but have a certain coherence of focus.

Minor in PJHR: 18 credit hours.

1. Two of the following three courses ( 6 credit hours): PJHR 230, HS 230, SC 111.
2. At least four additional 3 -credit courses ( 12 credit hours), normally from at least two different disciplines or departments. Please see the list of approved courses at http://sites.jcu.edu/pjhr/pages/courses/.

## PEACE, JUSTICE, HUMAN RIGHTS COURSES (PJHR)

400. CRITICAL INQUIRY 3 cr. Prerequisite: junior or senior standing. Explores research techniques commonly used to study issues related to PJHR, and the politics of knowledge production. Topics include historical research, literature reviews, critical analysis, interviewing, using survey data, ethics, and reducing power differences in research. Students choose a field of interest and research a related topic. Helps develop the skill set to complete an independent study on student-selected topics.
401. INTERNSHIP AND SEMINAR 3 cr. Prerequisites: permission of PJHR instructor; junior or senior standing. Capstone experience involving an internship or independent research project which aligns with the student's interests, skills, or career goals in peace, justice, and/or human rights. This may include internships in non-profit, social justice, legal, health, human service, or research settings. A weekly seminar will include ongoing reports, reflections, and analysis about students' field experiences.

## REQUIRED COURSES

EN 231/HS 231. BUILDING PEACE AFTER EMPIRE 3 cr. Multidisciplinary study of the dynamics of conflict and peacemaking in South Africa, Northern Ireland, and other sites. Focus on the historical and cultural roots and persistence of conflict; the contestedness of history; peacebuilding, conflict transformation, reconciliation, and social restoration; artists' and writers' role in creating a just peace. Materials include histories, narratives, poems, and films.

## REQUIRED HISTORY COURSE (HS)

230. INTRODUCTION TO 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.

## REQUIRED SOCIOLOGY AND CRIMINOLOGY COURSE (SC)

 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.

# Philosophy (PL) 

Professors: E. W. Spurgin, S. M. Kaye, D. Taylor; Associate Professors: T. Nlandu (Chair), M. A. Eng, S. L. Fitzpatrick; Assistant Professors: D. Durmus, P. J. Mooney; Postdoctoral Fellow: N. Nya

Philosophy encompasses the systematic study of some of the most fundamental questions regarding existence, nature, knowledge, reality, politics, and morality. It allows us to develop an outlook on life that is broad and reflective and to engage the world rationally and critically. A basic understanding of philosophy and philosophical methods serves as a framework for various other disciplines. 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 two courses: a Knowledge and Reality course, and a Values and Society course. Students may take any course offered in each category. Knowledge and Reality courses explore fundamental questions of nature, existence, and understanding. Values and Society courses explore fundamental questions of humans' relationships to one another and to the world. 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.

## Program Learning Goals in Philosophy.

Students will:

1. Write and speak knowledgeably about central aspects of and problems within the history of philosophy, as well as about philosophy's major historical figures.
2. Critically evaluate arguments and evidence.
3. Understand the relationship between philosophy and other academic disciplines.
4. Develop the skills necessary to engage critically with contemporary social issues.

## Major and Minor Requirements

Major in Philosophy. 36 credit hours ( 30 beyond Core requirements): Two seminars (PL 450), or one seminar and a senior thesis (PL 495); and ten additional courses. Students take at least four Knowledge and Reality courses and at least four Values and Society courses of their choice or follow one of the four "Recommended Options" below.

Borromeo Seminary Institute Major in Philosophy. 36 credit hours: PL 205, 240, 246, 304, 308, 368, 387, 395, 391, 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 ( 12 beyond Core requirements): PL 450, one Knowledge and Reality course, one Values and Society course, and three electives. Students electing to pursue a specialized minor should choose their courses from within one of the four curricular options described below.

## Recommended Options 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 options:
I. History of Philosophy. Students in the History of Philosophy option 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 option 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 the following: PL 245, 250, or 255
E. Either PL 270 or 275
F. One of the following: PL 260, 285, 286, or 290
G. PL 450
H. Four electives, one of which may be from another department whose offerings complement this option.
II. Critical Social Philosophy. The Critical Social Philosophy option 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 subdivisions 1,2 , and 3 ( 18 credit 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. Four electives, one of which may be from another department whose offerings complement this option.
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 option 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 204 or 205
E. PL 320
F. PL 368
G. PL 450
H. Four electives, one of which may be from another department whose offerings complement this option.
IV. Health, Ethics, and Science. The Health, Ethics, and Science option is recommended for students interested in social, ethical, and foundational issues related to science and medicine. This option 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 the following: PL 204, 205, 315, or 379
G. PL 450
H. Four electives, one of which may be from another department whose offerings complement this option.

Lists of approved electives from other departments for all options are available in the philosophy department. Alternative courses must be approved by the student's advisor and the department chair.

KNOWLEDGE AND REALITY. These courses explore fundamental questions of nature, existence, and understanding.
204. INFORMAL LOGIC 3 cr. Study of correct and incorrect reasoning involved in everyday life. Examines the fundamentals of language, fallacies, and deductive and inductive arguments, with an emphasis on the use and misuse of statistics.
205. FORMAL 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.
210. ANCIENT GREEK PHILOSOPHY 3 cr. Ancient Greek philosophical thought, with major emphasis on the works of Plato and Aristotle.
220. MEDIEVAL PHILOSOPHY 3 cr. Medieval philosophy, including the thought of Augustine, Aquinas, and other major figures.
225. MEDIEVAL PHILOSOPHY AND LOGIC 3 cr. Medieval philosophy, including the thought of Augustine, Aquinas, and other major figures; also includes a component of logic. Offered at Borromeo Seminary.
240. 17 ${ }^{\text {th }}$ - AND $18{ }^{\text {th }}$-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. 19 ${ }^{\text {th }}$-CENTURY EUROPEAN PHILOSOPHY 3 cr . Study of some of the major figures of the nineteenth century from Fichte through Nietzsche.
246. $1^{\text {th }}$ - AND $20^{\text {th }}$ - 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 array of ethnophilosophies 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.
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.
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. Indepth historical study of specific philosophical theories and problems or of a particular philosopher's work.

298A. SPECIAL TOPICS IN KNOWLEDGE AND REALITY 1-3 cr. Indepth historical study of specific philosophical perspectives on questions of nature, existence, and understanding.
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.
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.
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.
391. WHAT DOES SCIENCE PROVE 3 cr. Considers the alleged conflict between science and religion, including the origins of the universe, cognitive psychology of religious belief, human uniqueness and immortality, artificial intelligence, moral responsibility and neuroscience, and the historical Adam. Offered at Borromeo Seminary.
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.

## VALUES AND SOCIETY.

These courses explore fundamental questions of humans' relationships to one another and to the world.
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.
289. SOCIAL AND POLITICAL PHILOSOPHY 3 cr. Nature and function of the state, the grounds of political obligation, and related concepts such as liberty, equality, and justice through an examination of major political thinkers in their historical context.
299. VALUES AND SOCIETY: SPECIAL TOPICS 1-3 cr. In-depth historical study of specific philosophical theories and problems or of a particular philosopher's work.
304. PHILOSOPHY OF THE HUMAN PERSON 3 cr. Philosophical reflection on some fundamental and enduring questions about humans 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.
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.
315. APPLIED ETHICS 3 cr. The application of ethical concepts to specialized areas such as medicine, biology, the environment, and law. Course topic listed in 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 on 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.
350. PHILOSOPHY OF BEAUTY AND ART 3 cr. Philosophical investigation of beauty and questions raised by art works, e.g., what is a work of art and what are 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).
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.
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.
399. VALUES AND SOCIETY: SPECIAL TOPICS 1-3 cr. In-depth study of specific philosophical theories and problems 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 Seminary.
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. (The 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 credit hours can be used to satisfy major requirements.


# Physics (PH) Engineering Physics (EP) 

Professors: G. Lacueva (Associate Dean), A. R. Day, J. S. Dyck (Chair), N. K. Piracha; Associate Professor: P. Tian; Visiting Jesuit Scholar: A. Bianchini, S.J.

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 and engineering physics programs for its majors, support courses for other science majors, and courses for non-science majors that fulfill requirements of the University Core Curriculum. 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 degree 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.A. Physics Major

This major provides students with a comprehensive introduction to the discipline and the opportunity to explore some areas of physics in greater depth. It is appropriate for students preparing for secondary school teaching and fits well with an environmental studies concentration, preparation for law, or business school. It is also a good choice for students pursuing the Dual Degree 3-2 Engineering Program.

## B.S. Physics Major

This major requires an in-depth study of the core areas of physics and a selection of upper-division courses such as thermal physics, atomic and molecular physics, 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 requires an in-depth study of the core areas of physics and 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.

## B.S. Interdisciplinary Physics Major

This major requires an in-depth study of the core areas of physics and a selection of courses from the departments of biology, chemistry, psychology, and mathematics and computer science, or from the Boler School of Business. This is the best choice for students interested in pursuing medical school or 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.

## Grade Policies

Major Declaration: Students must achieve a minimum GPA of 2.5 in PH 135, 136 , and 246 , and MT 135, 136, and 233 for unconditional acceptance into any of the majors of the physics department.

For Majors: 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.

## Engineering Programs

Students interested in engineering have the following options:

1. Participate in the Dual Degree 3-2 Program 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 bachelor's degree (B.S. or B.A.) from John Carroll University and a B.S. 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.
2. Complete a B.S. in engineering physics at John Carroll University and then enter the workforce or 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 School Psychology 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.

## Program Learning Goals for the Physics Major.

The following is a consolidation of the four sets of learning goals for the major programs of the B.S. in Physics (PH), Engineering Physics (EP), and Interdisciplinary Physics (IP), and the B.A. in Physics (BA).

Students will:

1. Demonstrate a solid understanding of the core principles and concepts of physics (for the bachelor of arts and the 3 bachelor of science degrees),
a. and gain understanding in selected additional advanced topics in physics (PH).
b. and gain understanding in selected additional advanced topics in engineering (EP).
c. and gain additional knowledge from complementary areas of biology, chemistry, mathematics, computer science, psychology, or business (IP).
2. Apply mathematical, analytical, computational, and experimental skills to model the behavior of physical systems, solve a wide range of physics problems, design and conduct experiments to measure and interpret physical phenomena, and critically evaluate scientific results and arguments, both their own and those of others.
3. Effectively communicate scientific hypotheses, research methods, data and analysis both orally and in writing and in a variety of venues.
4. Demonstrate awareness of professional responsibilities and good citizenship as members of the scientific community.
5. Be prepared to enter graduate school or employment appropriate to their chosen career path.

## Program Learning Goals for the Physics Minor.

Students will:

1. Demonstrate a solid understanding of the core principles and concepts of physics at an introductory level.
2. Apply mathematical, analytical, computational, and experimental skills to model the behavior of physical systems, solve a wide range of physics problems, design and conduct experiments to measure and interpret physical phenomena, and critically evaluate scientific results and arguments.
3. Effectively communicate scientific hypotheses, research methods, data and analysis both orally and in writing and in a variety of venues.

## Major and Minor Requirements

B.A. in Physics Major. 39 credit hours: PH 135, 135L, 136, 136L, 246, 247, 347, 348, 349, 407 or 408; EP 217, 260, 260L; plus 14 more PH or EP credits at the $300-400$ level, of which 8 credits must be chosen from (PH 315 and 315L), (PH 365 and 365L), (PH 445 and 445L), and (EP 451 and 451L).

Required Mathematics Support Courses. 12 credit hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 credit hours: CH 141 or 151H; 143 or 153.
B.S. in Physics Major. 53 credit hours: PH 135, 135L, 136, 136L, 246, 247, 315, 315L, 347,348 , 349, 365, 365L, 407 or 408, 445, 445L; EP 217, 260, 260L, 451, 451L; plus 12 credit hours of upper-division technical electives approved by the physics department (normally PH, EP, MT, or CS courses). The 12 hours of electives must include at least 6 hours of PH lecture credit.

Required Mathematics Support Courses. 12 credit hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 credit hours: CH 141 or 151H; 143 or 153.
B.S. in Engineering Physics Major. 55 credit hours: PH 135, 135L, 136, 136L, 246, $247,315,315 \mathrm{~L}, 347,348,349,365,365 \mathrm{~L}, 407$ or 408 , 445, 445L; EP 217, 260, 260L, 451, 451L; 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 credit hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 credit hours: CH 141 or 151H; 143 or 153.
B.S. in Interdisciplinary Physics Major. 54-62 credit hours: PH 135, 135L, 136, 136L, 246, 247, 315, 315L, 347, 348, 349, 365, 365L, 407 or 408, 445, 445L; EP 217, 260, 260L, 451, 451L; plus interdisciplinary support courses from BL, CH, MT, CS, PS, or the Boler School of Business:

Either
An additional 21 credit hours of lower-division courses, which must include 4 credit hours of laboratory courses.

Or
An additional 15 credit hours, at least 8 of which must be upper-division courses.
Required Mathematics Support Courses. 12 credit hours: MT 135, 136, 233.
Required Chemistry Support Courses. 5 credit hours: CH 141 or 151H; 143 or 153.
Note: For all B.S. programs, up to 8 hours of electives (up to 2 hours of lab credit) 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).

Minor in Physics. 20 credit hours: PH 135, 135L, 136, 136L, 246, 247, plus six more PH or EP credits at the 200-400 level.

Required Mathematics Support Courses. 12 credit hours: MT 135, 136, 233.

## PHYSICS (PH)

108. INTRODUCTORY PHYSICS BY INQUIRY 3 cr. Corequisite: CH 108. Inquiry-based introduction to fundamental concepts of physics. Meets for 3 hours per week in a laboratory setting. Intended for non-science majors, especially students in education.
109. 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 and computer activities designed to develop an appreciation of the scientific method and the methodology used to acquire and analyze astronomical data.
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, 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.
117. CLIMATE CHANGE SCIENCE \& POLICY 3 cr. Corequisite: CO 250. Composition of the atmosphere, energy balance of the earth, evidence of recent changes in the composition of the atmosphere and climate, natural and humaninduced climate changes, future climate scenarios, impacts of climate change, and climate change mitigation and adaptation policies.
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. Students who have not had high school physics should consult with the department chair prior to registering.

125L. GENERAL PHYSICS LABORATORYI 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 the applications to the physical sciences and engineering. 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.
246. MODERN PHYSICS 3 cr. Prerequisites: MT 136; 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. Newtonian and Lagrangian formulation of classical mechanics. Oscillations, coupled oscillators, central forces, rigid body dynamics, rotating reference frames. Mathematical concepts that arise in mechanics.

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.
330. ATOMIC AND MOLECULAR PHYSICS 3 cr. Prerequisites: PH 246, EP 217. Development of the theory of atomic and molecular structure. Applications of the theory to optical spectroscopy and laser physics.
347. ADVANCED LABORATORY 2 cr. Prerequisite: PH 247. Four hours of laboratory per week. Students perform a range of experiments in contemporary physics. The main focus is on advanced laboratory techniques using research-grade equipment and on data analysis and presentation.
348. PHYSICS SEMINAR I 0 cr. Meets weekly. Students must attend the monthly physics colloquium, where speakers from a variety of physics and engineering fields present their research, as well as additional presentations focused on career and graduate school preparation. Graded SA/FA.
349. PHYSICS SEMINAR II 0 cr. Students must attend the monthly physics colloquium as described in PH 348. 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 445 L . The foundations and fundamental principles of quantum physics. Hilbert space formalism, operators, eigenvalues and eigenvectors. Landmark experiments in quantum physics. Application of quantum theory, including angular momentum, one-dimensional systems, atoms and molecules.

445L. QUANTUM PHYSICS WORKSHOP 1 cr. Corequisite: PH 445. Two hours of workshop per week supporting PH 445 . Includes mathematical, computer, and problem-solving 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: junior or 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: junior or 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: junior or senior standing. Topics may be published in the schedule of classes for the applicable term.

497L. SPECIAL TOPICS LABORATORY 1 cr. Prerequisite: junior or senior standing. Experiments designed to complement the material covered in PH 497.

## ENGINEERING PHYSICS (EP)

201. HOW THINGS WORK 3 cr. Corequisite: ER 201. Practical introduction to physics and science in everyday life. Designed for students who are not majoring in sciences.

## 217. MATHEMATICAL METHODS OF PHYSICS AND ENGINEERING

$\mathbf{3}$ cr. Prerequisite: MT 136. A survey of mathematical methods in physics and engineering with an emphasis on techniques and applications of ordinary differential equations. Includes qualitative and numerical solutions, Laplace transforms, Fourier series, systems of linear equations, matrices and determinants.
260. DC/AC CIRCUITS 3 cr. Prerequisites: PH 136, MT 136; corequisite: EP 260L. Topics include DC/AC circuits and their analysis, and basic semiconductor devices.

260L. DC/AC CIRCUITS LABORATORY 1 cr. Corequisite: EP 260. Familiarization with oscilloscopes and other test instruments. DC and AC circuit measurements. Experiments with diode and transistor circuits. Two hours of laboratory per week.
451. NUMERICAL PHYSICS 3 cr. Prerequisite: EP 217; corequisite: EP 451L. Computational methods for physics and engineering using MATLAB ${ }^{\circledR}$. Topics include interpolation and 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: PH 136; EP 217; corequisite: EP 454L. Introduction of electromagnetic theory, geometric and physical optics, and selected topics of modern optics.

454L. OPTICS LABORATORY 1 cr. Corequisite: EP 454. Two hours of laboratory per week. Experiments in optics, including lenses and mirrors, polarization, interference, diffraction, and lasers.
467. SIGNALS AND SYSTEMS 3 cr. Prerequisites: EP 217; EP 260; corequisite: EP 467L. Basic concepts of signals and linear systems, including convolution, continuous and discrete time Fourier analysis, and applications such as sampling and communication systems.

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 ${ }^{\circledR}$. Two hours of laboratory per week.
475. ANALOG ELECTRONICS 3 cr. Prerequisite: EP 260; corequisite: EP 475L. Analysis and design of basic analog devices and their circuits: diodes, transistors, FETs, thyristors, power supply circuits, and optoelectronic devices.

457L. ELECTRONIC DEVICES 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 ELECTRONICS 3 cr. Prerequisites: MT 136, EP 260; corequisite: EP 478L. Digital devices and their applications: Boolean algebra, combinational and sequential logic design, arithmetic and logic circuits.

478L. DIGITAL ELECTRONICS LABORATORY 1 cr. Corequisite: EP 478. Experiments complementing EP 478. Practical experience in designing, implementing, and testing fairly complex digital circuits. Two hours of laboratory per week.
495. INDEPENDENT STUDY 1-3 cr. Prerequisites: junior or 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: junior or 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: junior or senior standing. Topics may be published in the schedule of classes for the applicable term.

497L. SPECIAL TOPICS LABORATORY 1 cr. Prerequisite: junior or senior standing. Experiments designed to complement the material covered in EP 497.

# Political Science (PO) 

Professor: M. E. Farrar (Dean); Associate Professors: A. Sobisch, P. A. Mason (Associate Dean), E. A. Stiles, M. J. Peden (Chair), J. J. Ziemke; Assistant Professors: D. R. Hahn, 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 institutions, law, public policy, the political economy of development, global 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 requires seven core courses and six elective courses. 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 by their junior year. Students must take PO 200 before taking PO 300. The six elective courses may be concentrated in one area to complete a concentration, or distributed across several areas. At least three hours of these electives must be at the 400 level, and only nine hours of electives for the major may be chosen from lower-division courses. PO 105 is an elective for the major and satisfies the QA requirement for the University Core.

Political science majors are also 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, 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. The department sponsors the Mu Upsilon chapter of Pi Sigma Alpha, the national political science honor society. Membership is open to students whose academic record reflects outstanding achievement and demonstrated interest in the study of political science.

## Program Learning Goals in Political Science.

Students will:

1. Demonstrate knowledge of the major fields of political science: American politics, comparative politics, international relations, political theory, and research methods.
2. Demonstrate academic and intellectual skills: critical analysis, academic writing, and oral communication.
3. Be engaged in and aware of local, national, and global politics.
4. Be prepared, according to interest, for graduate programs and/or careers related to political science (e.g., public policy, law, political journalism, international service).

## Major and Minor Requirements

Major in Political Science: 37 credit hours. The political science core: PO 101, 102, 103, 104, 200, 300, 300L; 18 hours of elective courses, selected from among PO 105 and all PO courses above PO 200 not specifically required for the major. These elective courses may be concentrated in one area or distributed across several areas. At least three hours of these electives must be at the 400 level, and only nine hours of electives for the major may be chosen from lowerdivision elective courses.

## Concentrations within the major of Political Science

Students majoring in political science may also complete a concentration within the major as a way of developing expertise through focus in a particular area.

Law and Society: 18 credit hours. PO 315, 317, and 417 (or equivalent course by petition); and 9 hours elected from among PO 213, 340, 395 (if relevant and by petition), 499 (if relevant and by petition); PL 289, 320; MHR 461, 463.

This concentration is for those majors interested in the study of law and its relationship to society. It is also useful for those students interested in pursuing a career in law.

Global Studies: 18 credit hours. PO 256, 336, and 12 hours elected from among PO 205, 210, 215, 220, 241, 243, 254, 320, 321, 325, 328, 330, 331, 332, $333,334,337,351,355,356,357,396,397,430,445,458,499$ on a topic related to international relations or comparative politics (by petition).

This concentration is for those majors who wish to develop expertise in global politics. It is also useful preparation for advanced study in comparative politics or international relations, or for a government or private sector career dealing with foreign affairs.

Methods and Analysis: 12 credit hours. In addition to the two methods courses required of all PO majors, this concentration requires PO 105 and either PO 203, 213, 304, or 446.

This concentration is for majors who wish to develop skills in data analysis and methodology. It is also useful for students interested in working in politics and public policy, or pursuing a graduate degree in political science.

## Minor Requirements

## (The minors in Political Science are available only to non-majors.)

Minor in United States Politics: 18 credit hours. PO 101 or 201, and 15 hours elected from among PO 203, 213, 295, 301, 304, 311, 315, 316, 317, 318, 319, 340, 395, 410, 412, 417, 499 (if relevant and by petition), with no more than 6 hours at the 200 level.

Minor in Foreign Affairs: 18 credit hours. PO 102 and 103, and 12 hours elected from among PO 205, 210, 215, 220, 241, 243, 254, 256, 296, 297, 311, 320, $321,325,328,330,331,332,333,334,336,337,351,355,356,357,396,397,430$, 445, 458, 499 (if relevant and by petition) with no more than 6 hours at the 200 level.

Minor in General Political Science: 18 credit hours. Two courses at the 100 level and four additional courses, 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 political science special topics courses may count toward the minor in General Political Science.
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 the development of political 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.
105. POLITICAL ANALYSIS 3 cr . Introduces students to foundational quantitative analysis in a political context, specifically describing and representing data, posing precise and testable questions, drawing inferences from data, analyzing data, and understanding appropriate statistical software.
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.
201. U.S. POLITICAL INSTITUTIONS 3 cr. Focuses on how American government works, with an emphasis on how our political institutions are intertwined. Specific topics include Congress, the presidency, media, interest groups, bureaucracy, and voting.
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 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.
205. HEALTHCARE ACCESS IN LATIN AMERICA 2 cr. Integrates immersion experience with the realities of healthcare access in Latin America. Topics include the cycle of poverty in Latin American countries, the link between healthcare access and poverty, and the specific case of the rural Honduran healthcare system.
210. MODEL ARAB LEAGUE SIMULATION 3 cr. Explores the functioning of international organizations through participation in Model Arab League Conferences; develops oral and written capabilities as well as critical thinking. Includes travel to participate in both regional and national conferences.
213. WRONGFUL CONVICTIONS 3 cr. Examines theories explaining why wrongful convictions occur, including discussion of witness identification, false confessions, perjured testimony from informants, ineffective counsel, and police and prosecutorial misconduct. Addresses consequences of wrongful conviction and proposed remedies.
215. ISLAM AND POLITICS 3 cr . Studies the history and development of Islam as a political movement; also, rise of political Islam and failure of the state in the Middle East.
220. EUROPEAN UNION SIMULATION 3 cr . Simulation course that models the lawmaking process within the European Union. Includes a three-day conference in November in Washington, D.C. Each student takes on the role of a political decision-maker from an EU member-state.
241. HISTORY, CULTURE, AND POLITICS 3 cr. Explores ways that relationships among history, culture, and politics are expressed within nations and across national borders. Incorporates comparative perspectives.
242. ISSUES IN SOCIAL JUSTICE 3 cr. Explores what counts as an issue of social justice. Includes a critical introduction to rights-based thinking, structural and ideological foundations of injustices, importance of narration and writing, and approaches to social change.
243. GLOBAL DEBT AND JUSTICE 3 cr. Examines debt from an interdisciplinary perspective, including how different religions and cultures understand debt, interest, profit, and obligation; the political economy of debt between nation-states and global institutions; and debt justice movements.
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 start of the "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. SPCIAL 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. Prerequisite: PO 101. Committees, leaders, party organizations, and floor proceedings in Congress; elections, legislative reform, lobbyists, and legislative behavior.
304. INTRODUCTION TO POLICY ANALYSIS 3 cr. Introduction to the public policy process; institutions that structure and implement policy response, models of decision-making, analytical and evaluative methodologies, epistemological approaches, normative concerns. Policy areas are investigated to illustrate both the actual and symbolic impact of the policy process within diverse political settings.
311. U.S. FOREIGN POLICY 3 cr. Prerequisites: PO 102 or PO 103. Sources, conduct, and effects of U.S. foreign policy from the standpoint of various analytical frameworks.
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 POLITICS 3 cr. Prerequisite: PO 101. 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. Prerequisite: PO 101. How interest groups affect the American political process. Analysis of interestgroup 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. Prerequisite: PO 102. Focuses on 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.

## 325. POLITICS OF THE LEAGUE OF ARAB STATES 3 cr. Focuses on

 achieving an understanding of international issues and the function of international organizations with specific emphasis on Arab states. Develops diplomatic capabilities, persuasion skills, and proficiency in parliamentary procedure. Includes travel for participation in the Model Arab League conference.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.

International issues and conflicts of the Middle East and their influences across the world studied within the context of the history of the area and theories of international relations. Provides a deeper understanding of the area and the system which produced the international relations in the Middle East today.
331. U.S. FOREIGN POLICY IN THE MIDDLE EAST 3 cr. Overview of the U.S. policy in the Middle East from the end of World War II to the present. Examines U.S. policy through the interplay of factors such as national interest, the Cold War, the new world order, ongoing wars, and U.S. relations with a number of Middle Eastern countries.
332. AFRICAN POLITICS 3 cr. Historical perspective on topics of colonialism, independence movements, neopatrimonialism, nationalism, democratization, conflict, genocide, women's movements, and civil society, among many other contemporary concerns, with an emphasis on variation across space and time.
333. INTERNATIONAL CONFLICT AND SECURITY 3 cr. Prerequisite: PO 103. Focuses on the sources of and responses to insecurity for states and individuals, including genocide, insurgency, civil wars, interstate conflicts, terrorism, and other global threats in the kinetic, cyber, neurocognitive, and narrative space.

## 334. INTERNATIONAL INSTITUTIONS, LAW, AND HUMAN RIGHTS

$\mathbf{3}$ cr. Prerequisite: PO 103. Focus on international organizations such as the International Criminal Court that 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.
336. INTERNATIONAL POLITICAL ECONOMY 3 cr. Prerequisite: PO 103 or PO 256. 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. 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 the courts and trials in a political system.
351. BERLIN SEMINAR 3 cr . Intensive introduction to the city of Berlin, focusing on Berlin as capital of empire, republic, and the Nazi regime; as divided city during the Cold War; and as center of 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, POLITICAL POWER, AND

 DEVELOPMENT IN LATIN AMERICA 3 cr. Examines various identities (national, religious, indigenous) as groups have mobilized in response to political and economic change. Includes a historical overview of Latin America emphasizing Catholic interactions with other traditions important in Latin American politics and economic development.
## 356. POLITICAL TRANSFORMATION: CASE STUDIES FROM LATIN

 AMERICA 3 cr. Prerequisite: PO 102, PO 254, or PO 256. 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.
## 357. VIRTUE AND POLITICAL ORDER FROM PLATO TO THE PRESENT

3 cr. Designed to serve as an EHE Core course linked with a PL course. Examines the political implications of the human desire for happiness.
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 398 more than once 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; permission of instructor. Research of 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. Prerequisites: PO 101, PO 200. Institutions, personalities, and political processes centered in the presidency; implications of 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.
412. URBAN POLITICS 3 cr . Comparative study of the political systems of urban areas emphasizing forms of urban government, metropolitan government, political machines, elections, interest groups, local executives, city councils, and bureaucracies.
417. THE U.S. SUPREME COURT 3 cr. Prerequisite: PO 315, PO 317, or instructor permission. History and role of the U.S. Supreme Court in U.S. politics. Special attention as to how and why the Court renders decisions, how it determines its docket and case load, and the impact of its decisions. Includes significant independent research.
430. SEMINAR: INTERNATIONAL RELATIONS ON THE BLEEDING EDGE: IMAGINING TOMORROW 3 cr . Explores topics in current international relations pertaining to security, intelligence, and defense applications. Wars today take place in physical space, cyberspace, and narrative space, i.e., social media. Also examines application of neuroscience and neurotechnology to counter state and nonstate threats, how virtual reality and augmented reality can help understand data, and how UAVs and robotics change the nature of the fight in the kinetic sphere.
445. NATIONALISM AND CITIZENSHIP 3 cr . The two dominant ways of interpreting political identity, with theoretical and empirical components. Relationship between ascriptive identity and democracy, meaning of patriotism, impact of colonialism and race-thinking, and 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.
458. TOPICS IN POLITICAL DEVELOPMENT 3 cr. Prerequisite: PO 102, PO 256, or instructor permission. Uses a different theme each time it is offered. Examines topics from around the globe on political transformation and economic development.
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.


# Pre-Health Professions (PHP) 

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#### Abstract

The Pre-Health Professions Program is John Carroll's program for students of any major interested in a career in healthcare. The program helps students make the career choices best suited to their talents and abilities. This is accomplished by providing each student with current and accurate information, guidance, and support about the education, training, and careers of healthcare providers. Since students have many options available to them, the guidance helps them to determine which path is right for them and their career interests. In addition, PHP support helps them to make good choices and to work through any dilemmas encountered along the way. The Pre-Health Professions Program also provides students with interview experience, constructive feedback, and a committee letter of recommendation that supports applications to healthcare professional programs as determined by the student.


## Pre-Health Professions

Students planning to apply to medical or dental school must take biology, chemistry, organic chemistry, and physics. Students also are strongly advised to take genetics, biochemistry, statistics, calculus, and psychology to prepare for these highly competitive programs. Requirements for other health professional programs, and the standardized tests required for application, can vary substantially so students must check the details of specific programs and schools to inform themselves of the requirements.

Pre-health professions students are strongly urged to contact the director of the PreHealth Professions Program at John Carroll University 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.

For additional information, please see the Preparation for Graduate and Professional Study section of this Bulletin and the Pre-Health Professions website (www.jcu.edu/ prehealth).

## Early Acceptance Programs

Lake Erie College of Osteopathic Medicine and John Carroll University have an Early Acceptance Program Agreement whereby up to twenty seats per year are reserved for John Carroll students to enter LECOM's medical, dental, and/or pharmacy schools. High school seniors and current JCU students are eligible for this program.

Ohio University Heritage College of Osteopathic Medicine and John Carroll University have an Early Acceptance Program Agreement whereby up to ten seats per year are reserved for John Carroll students to enter OU-HCOM's osteopathic medical schools. Established Ohio residents who are high school seniors and meet admission requirements may apply for the program.

John Carroll University and Case Western Reserve University's Master of Science in Anesthesia Program have an Early Acceptance Program whereby up to twelve seats per year (four at each program site: Cleveland, Houston, and Washington, D.C.) are reserved for John Carroll students to enter CWRU's program to become an anesthesiologist assistant. Current JCU students who have completed at least 80 credits and the appropriate prerequisite courses with a grade of B- or higher are eligible to apply.

For additional information, please contact the director of Pre-Health Professions or go to the Pre-Health Professions website (www.jcu.edu/prehealth).

## Program Learning Goals in Pre-Health Professions.

Students will:

1. Acquire foundational knowledge of the human and natural worlds through completion of appropriate integrative courses and other courses that ensure academic preparation for health professional programs.
2. Understand the variety of careers in healthcare, and pathways to access those careers, including program prerequisites, standardized tests needed, and application processes and be able to explain why the chosen career path is personally appropriate.
3. Demonstrate understanding that health careers are service careers, requiring skills involving critical analysis, communication, leadership, collaboration, cultural competency, and creative thinking.

## Professional Healthcare Preparation Minor \& Certificate Requirements

## Minor in Professional Healthcare Preparation Program Curricular

Requirements: The minor will require 7 courses ( 18 credit hours): Both PHP courses in category A and one from each of the five remaining categories. Students must complete both of the requirements in the experiential course work.

Certificate in Professional Healthcare Preparation Program Curricular
Requirements: The certificate program will consist of 5 courses ( 12 credit hours). Students must take both PHP courses. Students then choose three more 3 -credit courses from any of the remaining categories. Of those three courses, two must come from different categories. Students must meet the experiential requirement by means of Gl (shadowing), which is described below.

## Required Courses:

A) PHP 121 and PHP 124; plus at least one course each from B through F.
B) Understanding the Patient: SC 270 or PS 362.
C) The Ethics of Care: PL 316 or other appropriate courses.
D) Communication in Healthcare Settings: CO 200, CO 399, or EN 300.
E) Managing Healthcare: CS 312 or other appropriate courses.
F) Elective Courses: PHP 275, SC 273, SC 275, SC 285, SC 295, SC 315, SC 385, BL 240, BL 260, PS 226, PS 381, PS 401, PS 426.
G) Experiential Requirements:

1. Shadowing: Students must spend a minimum of 40 hours shadowing no less than two healthcare providers.
2. Students seeking a minor must engage in one of the following:

- Research at an external site or at JCU with faculty member.
- Internship at approved site.
- Participation in medical immersion trip sponsored by JCU or other approved sponsor.
- Participation in Summer Field Experience.
- Service Learning related to healthcare arranged via the Center for Service and Social Action (must be a full semester) or volunteering with JCU EMS.

121. SURVEY OF HEALTH PROFESSIONS 0-1 cr. Introduces the many career options available in healthcare. Meets once weekly; features speakers representing various healthcare professions. Students develop an Individual Development Plan.
122. PRIMARY HEALTH PREPARATION 2 cr. Introduces the changing face of medicine in the $21^{\text {st }}$ century. Explores current medical practice and education through readings in popular literature, social science, ethics, and contemporary medical literature.

## 273. CURRENT ISSUES IN POPULATION AND PUBLIC HEALTH 1

cr. Prerequisite: instructor permission. Interdisciplinary seminar on current population and public health issues in the U.S. and globally. Topics include disease outbreaks, current health policy debates, and community health implications of environmental issues and lifestyles, with special focus on diversity and ethics. May be repeated for up to 3 credits.
275. GLOBAL HEALTHCARE DELIVERY 3 cr. Fundamentals of global issues in healthcare. Emphasizes effects of the increasing interconnectedness of healthcare among global cultures due to advances in information, communication, and the economy; also, how these developments will change healthcare delivery and health policy globally.

## 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 PPH minor: a supervised internship in a public health setting in conjunction with on-campus seminar focused on career development, public health systems, and interdisciplinary analysis of the varieties of public health practices.


## Psychology (PS)

Professors: H. M. Murphy, E. V. Swenson, B. A. Martin, D. D. BenPorath, N. R. Santilli (Interim Provost and Academic Vice President); Associate Professors: J. H. Yost, A. A. Imam, T. Masterson; A. C. Jones (Director, Honors Program); Assistant Professors: S. D. Young (Chair), A. M. Tarescavage

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 resource, 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.

## 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 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 (or PS 100) is prerequisite to all courses at the 200 level and beyond in Psychology, unless otherwise noted. It is the only 100 -level course that is counted in the major. PS 100 meets the Issues in Social Justice requirement and PS 101 meets the science distribution requirement of the Integrative Core Curriculum. PS 101 may be applied to the Distributive Core Curriculum or general elective credit-hour requirements. Check the listings in the schedule of classes each semester to see which additional courses may be applied to the requirements of the Distributive Core.

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 the discipline 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 497 N or 499.

Specialized Concentrations in Psychology: Majors may elect to complete one of the four concentrations in applied Psychology described below. These focused concentrations were designed for students with specialized interests in applying psychological principles in business, school, or mental health settings. Because courses in these concentrations are not offered every semester, careful planning and course selection will increase the likelihood of successfully completing a concentration.

Child and Family Studies: This concentration 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 concentration and the major requires the following courses: PS 101, 261, 262 , 301/301L, 326, 332/332L or 380/380L, 342 or SC $255,365,415,435,455$ or 457, 476; SC 225 or 275. Coordinator: Dr. Sheri Young.

Forensic Psychology: This concentration 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 concentration 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 concentration is intended for two groups of students: those who wish to pursue graduate training and those seeking employment in I/O-related areas. Students prepare for both graduate school and 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 concentration 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 MHR 376, 453, 470, 473; BI 200. Coordinator: Dr. Beth Martin.

Mental Health Services: This concentration 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 both the mental health services concentration and the psychology major are as follows: PS 101, 301/301L, 381, 435, 457, 462, 471, 477, 482C, or 483C; one course chosen from PS 241, 261, 262; one of PS 332/332L or $380 / 380 \mathrm{~L}$; one of PS 318/318L or 326; and at least one additional PS elective.
Coordinator: Dr. Denise Ben-Porath.

## 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. It is strongly recommended that students interested in this program investigate the neuroscience concentration as early as possible in their academic careers. Interested students should refer to page 83 in this Bulletin for more information. Coordinator: Dr. Helen M. Murphy.

## 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, students should consult the chair of the Department of Sociology and Criminology, who coordinates this program, during their first year.

## Program Learning Goals in Psychology.

Students will demonstrate:

1. A fundamental knowledge base in the core areas of psychology.
2. Critical thinking skills and their application.
3. Proficiency in the use of the language of psychology in both written and verbal form.
4. Expertise in the methods of information gathering, organization, and synthesis as applied to psychology.
5. Mastery of the experimental method and statistical analysis as practiced by psychologists.
6. An understanding of the ethics and values of the discipline.
7. A readiness for graduate study or for transition into the workforce.
8. Recognition of how psychology contributes to the understanding of human diversity.

## 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 maintain 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 credit hours in the major must be taken at John Carroll University.
A comprehensive examination, given during the final semester of the senior year, must be passed by all majors in Psychology.

Required Support Courses: MT 122 and MT 223 (minimum grade of C- required in MT 223) should be taken by the end of the sophomore year. MT 228 or EC 208 may substitute for MT 122.

Minor in Psychology: 24 credit hours. PS 101 and 7 more PS courses, including one course from each content group (A, B, C, and D above) and three electives. Five courses must be at the 300 level or above. TWO courses must be lab courses.

## 100. INTRODUCTION TO PSYCHOLOGY: PERSPECTIVES IN SOCIAL

JUSTICE 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. Students will engage in reflection regarding the research and practices in psychology that have hindered, and contributed to, the creation of a socially just world. Students completing PS 101 cannot take PS 100.
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. Students completing PS 100 cannot take PS 101.
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 nonmajors, particularly those pursuing careers in the health professions. Does not fulfill requirements of the PS major. Cannot be taken concurrently with PS 261, 262, or 365 . Offered every spring.

## 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. Offered every spring.
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.
260. CHILD DEVELOPMENT IN CONTEXT 3 cr. Corequisite: HS 260.

Survey of basic developmental theories, focus on gender and racial diversity, family structures and intellectual functioning from early childhood through adolescence. Designed for non-majors and does not count for credit in "Group B" of the major. Does not count for credit in the Child and Families Studies concentration. Offered every spring.
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, cognitive, 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, cognitive, socio-emotional, and cultural changes associated with the various contexts of this stage of development (i.e., educational, home and recreational settings). Cannot be taken concurrently with PS 175.

## 295. INTRODUCTION TO SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr.

Prerequisite: permission of instructor. A selection of courses on a variety of topics designed for both Psychology majors and non-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.
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) conducting a literature review, (b) learning about 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) and completion of the Written Expression core requirement; 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. Offered every fall in odd years.
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 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. Offered every fall.

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. Offered every fall.
342. PSYCHOLOGY OF PREJUDICE 3 cr. Discussion of classic and contemporary theories and research on stereotypes, prejudice, discrimination, and intolerance. Much of the course explores how the insidious nature of implicit prejudice and stereotyping may unknowingly perpetuate social inequality, even for individuals who genuinely do not perceive themselves as prejudiced or biased. Offered every fall.
351. THEORIES AND RESEARCH ABOUT PERSONALITY 3 cr. Survey of major personality theories with critical consideration of research support. Offered every fall in even years.

## 359. INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 3 cr .

Traditional topics in industrial/organizational psychology approached from a social justice perspective. Includes current theories of work motivation, job design, and leadership. Offered every spring.
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). Offered every spring.
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. Offered every fall.
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. Offered every fall.
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. Offered every spring.
380. HUMAN MEMORY AND COGNITION 3 cr. Corequisite: PS 380L. Theoretical study of how people acquire and use knowledge. Topics include attention, the representation of meaning, 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. Focuses 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 of eating disorders and the role of the physician, dietician, and nutrition in addressing them. Offered every fall.
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. Offered every fall.
395. SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr. A selection of courses on a variety of special topics designed for both psychology majors and non-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. Students design, conduct, analyze, and report results of their own psychological research. They are encouraged to present their research at a professional conference and/or prepare a manuscript suitable for submission to a psychological journal. Topics include advanced statistical techniques. Offered every spring.
407. PSYCHOLOGY OF AUTISM 3 cr. Focuses on the characteristics and incidence of autism, and the implications for children's learning, behavior, and ability to process information. Explores the latest research on potential causes, best practices for assessment and intervention, and areas of impairment; also, the multidisciplinary specializations that work with individuals with autism and current issues related to autism services and behavioral interventions. Offered every spring.
415. MULTICULTURAL PSYCHOLOGY 3 cr . Examines the influence of the social, cultural, and historical factors that impact the formation of identity within groups as well as between groups. Theoretical approaches to understanding individual and group identity are used to critically evaluate the implications and application of current research and literature, while working toward enhancing cultural competencies in professional settings. Offered every spring.
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. Offered every fall.
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 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. Examines test construction, reliability, validity, and frequently used psychological tests. Not a course in test administration.
442. LAB MANAGEMENT SCIENCE IN PSYCHOLOGY 1-3 cr. Prerequisite: grade of B+ or higher in PS 301. CITI certification for work with human participants must be completed at the start of the course. Uses SONA, SPSS, MediaLab, and Qualtrics to assist faculty and students in troubleshooting research protocols. Lab managers monitor department lab space and equipment to ensure compliance with IRB, 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. Important issues in the assessment, classification, and treatment of developmental and behavioral disturbances in infants, children, and adolescents according to the Diagnostic and Statistical Manual and current empirical literature; also, etiological and maintaining factors related to childhood psychological disorders. Aims to identify 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. Offered every fall.
462. COUNSELING THEORY AND PRACTICE 3 cr. Major counseling theories-including psychodynamic, cognitive-behavioral, and phenomenologicalas well as third-wave therapies, such as acceptance and commitment therapy (ACT) and dialectical behavior therapy (DBT). Discussion of techniques employed in these approaches and empirical support for therapeutic interventions. Offered every fall.

## 470. SEMINAR ON CHILDREN AND FAMILIES IN THE LEGAL SYSTEM

$\mathbf{3} \mathbf{c r}$. Overview of relevant case and statutory law pertaining to children and families. Topics include parental rights, child protection, child custody, adoption, juvenile justice, children's rights, children in the courtroom, decision-making, and the termination of the parental relationship. Offered every spring.
471. SEMINAR IN ETHICS IN PSYCHOLOGY 3 cr. Professional ethics in psychology. Ethical dilemmas that confront mental health service providers and counselors, researchers, academics, and those in psychology-related fields. Based on the American Psychological Association Ethical Principles of Psychologists and Code of Conduct and its usefulness in analyzing and resolving ethical dilemmas.

## 476. SENIOR SEMINAR IN CHILD AND FAMILY STUDIES 3 cr .

Prerequisite: permission of instructor. Students following the Child and Family Studies concentration discuss issues related to children and families. Offered every fall.

## 477. SENIOR SEMINAR IN MENTAL HEALTH SERVICES 3 cr.

Prerequisite: PS 457. Uses film portrayals of psychological disorders as a tool to learn about abnormal psychology. Examination of DSM-5 criteria as they pertain to characters in the films. Students identify specific symptomatology and develop a treatment plan for the films' protagonists. Offered every spring.
479. SENIOR SEMINAR IN PSYCHOLOGY 3 cr . Series of courses on a variety of special topics in psychology designed for senior psychology students.

480-493. PRACTICA IN PSYCHOLOGY 1-3 cr. Prerequisite: 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 preceding semester. Requires a scholarly paper, developed with the supervising faculty member. The instructor may help in securing a practicum, but ultimate responsibility belongs to the student.

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.

Educational, clinical, agency, and school settings.

488-489. PRACTICUM: THE HOSPITALIZED CHILD 3 cr. Prerequisites: PS 261 or PS 262; permission of instructor. Supervised experiences in the application of psychological principles and techniques to adjustment problems with infants, children, adolescents, and their families in a university medical setting.
495. ADVANCED SPECIAL TOPICS IN PSYCHOLOGY 1-3 cr. Prerequisite: permission of instructor. A selection of courses on a variety of special topics in psychology designed for majors and non-majors.
496. READINGS IN PSYCHOLOGY 1-3 cr. Prerequisites: 3.0 GPA ; permission of instructor and department chair. Supervised readings course for advanced undergraduates on a specialized topic in psychology, co-arranged by each student and a faculty member. Requires critical and original review of the literature. A course plan must be developed with the instructor and approved by the chair prior to enrollment.

## 497N. ADVANCED RESEARCH TOPICS IN NEUROSCIENCE 3 cr.

Prerequisites: 3.0 GPA ; 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 coordinator prior to enrollment. Offered every fall.
498. PRACTICUM IN RESEARCH METHODS 1 cr. Prerequisites: PS 301; permission of instructor. Practicum in research methods and assisting instructor by serving as resource person for students in PS 301. May be repeated for up to 3 credits.

## 499. INDIVIDUAL RESEARCH PROJECT IN PSYCHOLOGY 1-3 cr.

Prerequisites: $3.0 \mathrm{GPA}, \mathrm{PS} 401$, and permission of instructor and 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 chair prior to enrollment.


## Russian (RS)

Associate Professor: G. Sabo, S.J.

The program in Russian is offered by the Department of Classical and Modern Languages and Cultures. The study of the Russian language and culture helps students become acquainted with a major country, in size 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. Moreover, 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 of the former USSR.

Russian courses fulfill the University's institutional academic learning outcomes, since students will be expected to communicate skillfully in multiple forms of expression, and act competently in a global and diverse world.
101. BEGINNING RUSSIAN $I 3$ cr. Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. For students with little or no previous study of Russian or by placement test. (Fall)
102. BEGINNING RUSSIAN II 3 cr. Prerequisite: RS 101 or equivalent or by placement test. Amplification of language skills in a cultural context. (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.

201-202. INTERMEDIATE RUSSIAN I, II 3 cr. each. Prerequisite: RS 102 or equivalent or by placement test. 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.
299. SPECIAL TOPICS 1-3 cr. Occasional course on a selected topic announced in advance. 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 program in Slovak is offered by the Department of Classical and Modern Languages and Cultures. Its study helps acquaint students with a recently sovereign and democratic nation, one of the newest members of the European Union. Beginning Slovak develops novice levels in reading, understanding, writing, and speaking Slovak. IC 230 and 231 enable students to read in English classic Slovak short fiction written since 1800 in the context of two other Slavic literaturesRussian and Czech.

While offering a way to fulfill the Core Curriculum's language requirement, Slovak-the most geographically central Slavic language-also facilitates communicating with others in Central and Eastern Europe. Moreover, Slovak, like English an Indo-European language, shares more vocabulary with it than is generally realized.

Finally, courses in the Slovak language fulfill the University's institutional academic learning outcomes, since students will be expected to communicate skillfully in multiple forms of expression, and act competently in a global and diverse world.
101. BEGINNING SLOVAK I 3 cr. Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. For students with no previous study of Slovak or by placement evaluation by the coordinator of Slavic Languages. (Fall)
102. BEGINNING SLOVAK II 3 cr. Prerequisite: SL 101 or equivalent or by placement evaluation by the coordinator of Slavic Languages. 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 or by placement evaluation. Further development of the four language skills for communication in a cultural context; expanding 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: S. O. Long, P. B. Harris; Associate Professors: K. N. Eslinger, R. D. Clark (Chair), W. A. Wiedenhoft-Murphy, G. S. Vaquera, M. W. Barnes; Postdoctoral Fellow: K. S. Chaplin

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, race and ethnicity, 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

Sociology and criminology majors may elect to focus their study in one or more of the areas of expertise (concentrations) 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 either the first or the sophomore year. 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.

## Specialized Concentrations in Sociology and Criminology

Sociology and criminology majors or minors may elect to focus attention on one of five specialized concentrations in sociology. Fulfillment of the concentrations requires that all requirements and options within the concentrations be successfully completed. In some cases, the requirements for a concentration may exceed the requirements for the sociology and criminology minor. For students wanting
to complete two concentrations, they may overlap two courses, which would be counted toward both concentrations.

The Criminology concentration 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. Concentration requirements are 18-19 credit hours. The concentration consists of five tiers of courses. Tier I: Introductory Courses (Select 1) - SC 230 or 240; Tier II: Special Topics in Criminology (Select I) - SC 220, 265, 275, or 280; Tier III: Diversity, Culture, and Inclusion (Select 1) - SC 235, 255, 257, or 320; 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 concentration.

The Diversity, Culture, and Inclusion concentration 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, in which 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 concentration requires a total of 18 credit hours. Students must take two out of three of the foundational courses: SC 255 , 257, or 320 . Additionally, students must select four other courses from the following list: SC 115, 201, 215, 235, 245, 250, 253, 255, 257, $260,315,320,353,355,370,380,385$, 475 , or 490.

The Human Service, Health, and Social Justice concentration 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 concentration requires a total of 20 credit hours, consisting of SC 111, 273, 385, 475, 490, and at least one of the following: SC 115, 215, 225, 230, 235, 255, 260, 275, 285, $295,300,315,320,335,340,357,370$, or 380.

Aging Studies is an interdisciplinary concentration that provides an in-depth understanding of the aging process. The concentration consists of 19 credit 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 three hours consist of approved electives. The following are required: PS 365; TRS 260; SC 285, 475, 490. One elective must be chosen from the following: PL 310, 316; PS 175, 362; SC 273, 295, 493; TRS 369B, or another course approved by the program director.

The Forensic Behavioral Studies concentration is recommended for students interested in law enforcement and criminal justice. The concentration consists of 21 credit hours. 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 concentration consists of: SC 220, 223, 240, 293, 388, 495, and 300 or 355 or 435.

Please consult the department chair about questions and details regarding the concentrations.

## Interdisciplinary Minors

Sociology and criminology majors and minors may also participate in a number of interdisciplinary minors, such as: East Asian Studies; Gender, Sexuality and Women's Studies; Entrepreneurship; Catholic Studies; Peace, Justice, and Human Rights; and 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 page 94 in this Bulletin for more information.

## Integrative Core Curriculum Participation, and the Additional WritingIntensive Course, Additional Presentation Component, and Capstone Experience for Sociology and Criminology Majors

The content of sociology courses contributes strongly to students' liberal arts education through its participation in the integrated courses in the Core Curriculum: "Engaging the Global Community," "Exploring the Natural World," and "Examining the Human Experience." A number of sociology courses are also designated as social justice courses in the Core Curriculum. The field of sociology initiated much of the early research on diversity, inclusion, and social justice issues. Most sociology and criminology courses reflect a continuing emphasis on that topic.

It should be noted that the writing requirement of the Integrative 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 an AW in the course schedule, designating it as an additional writing-intensive course. Sociology and criminology majors through completion of SC 352 (taken as a co-requisite with SC 351) fulfill the additional presentation requirement of the Integrative Core Curriculum. The sociology and criminology courses that fulfill the capstone experience are marked "C".

## 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, e.g., SC 356 (Research in Japanese Society and Culture); or 2) study-abroad programs coordinated by the University's Center for Global Education.

## Service-Learning and Social Justice in the Sociology and Criminology Curriculum

The department is committed to service-learning and social justice issues with 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 101, 111, 235, 240, 255, 257, 265, 273, 300, 380, 385 , and 475, and many other courses. It also cooperates with other University offices in placing students for service-learning opportunities. See the department chair for full details.

## Student Awards-See page 49

## Graduate Programs

Many graduates of the department have undertaken graduate study in sociology or criminology, and in a variety of related fields, such as anthropology, criminal justice, 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 with 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. 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 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 and criminology from John Carroll and a master's in social work from Case Western Reserve University. For details, including standards for eligibility, students should consult the chair of the Department of Sociology and Criminology during their first year.

## Program Learning Goals in Sociology and Criminology.

Students will:

1. Be able to engage in critical questioning about their society, its social structure, and the larger world in which they live.
2. Develop critical sociological thinking skills in: reasoning, theoretical analysis, interpretation of research findings, and the general ability to separate fact from misinformation in order to engage the institutions and cultures of the multiple societies in this global community.
3. Be able to engage in research of various types with the goals of answering questions and disseminating findings in oral and written forms about the nature of human society and its diversity, cultures, human interactions, social structure, and issues related to social justice.
4. Develop as whole persons with their completion of a successful educational program with its implications for continued learning and a successful work life, and a commitment to lifelong civic engagement.

## Major and Minor Requirements

Major in Sociology and Criminology: 37 credit hours. SC 101, 350, 351, 352, 400 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 351. 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 will be taken during the last semester of senior year. Details of the examination are available from the department chair.

Minor in Sociology and Criminology: 21 credit hours. SC 101, 400, and one additional upper-division sociology course are required, as well as 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 concentrations 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.
101. FOUNDATIONS IN SOCIOLOGY 3 cr. Survey of human social relations, diversity, socialization, and 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.
115. MASCULINITIES 3 cr. Sociological perspectives on contemporary masculinities and men's lives. Topics include men's experiences with relationships, sports, violence, family, sexuality, caregiving, health systems, media portrayals, and work. Includes analysis of the differing viewpoints on male stereotypes, as well as the consequences for men, women, and the broader society.
195. GLOBAL DEBT AND JUSTICE 3 cr. Examines debt from an interdisciplinary perspective, including how different religions and cultures understand debt, interest, profit, and obligation; the political economy of debt between nation-state and global institutions; and debt justice movements.
199. SPECIAL STUDIES 1-3 cr. Variety of courses with special focus; subjects will be announced in the course schedule.
201. HISTORICAL AND CONTEMPORARY SOCIAL ISSUES 3 cr. Topics include crime and deviance, delinquency, health care, mental health, sex-related social problems, divorce and the family, poverty, discrimination, population and environmental problems.
203. SOCIOLOGY OF SPORTS 3 cr. Exploration of the cultural and structural relationships of sport to society. Particular attention to issues of race, class, gender, sexuality, crime and deviance, education, religion, economics, and politics as they relate to sport. The historical development of other social institutions will also be examined.
205. CONFLICT/COOPERATION: WAR/PEACE 3 cr. Applies a global approach to the study of war. Examines research from sociology, political science, history, and anthropology to address questions regarding the origins of war; mobilization; the identification and treatment of enemies; war's impact on race, class, and gender relations; relations between citizens and states; the significance of transnational insurgents; and peace-building.
215. SELF AND SOCIETY 3 cr . 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. 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. 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 . Causes and effects of violating social norms; inadequate socialization, labeling, and the relationship between individual and society; role of social control.

## 235. AFRICAN AMERICAN EXPERIENCE IN THE UNITED STATES 3

cr. Survey of African American people. Examines various facets and aspects of African Americans' cultures that collectively construct 'the African American Experience.' Themes include the arts and sciences, literature and film, research, drama, migration and education, law and urbanization, and economics and politics. Explores and analyzes problems and issues facing African Americans through cultural and socio-political contexts.
240. CRIMINOLOGY 3 cr . Survey of sociological data and theories pertinent to the types and incidence of crime in America.
245. CULTURAL 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)
255. PREJUDICE AND DISCRIMINATION 3 cr. Study of prejudice and discrimination, including their history, contemporary sources, and prospects for their reduction, with application to U.S. institutions. Particular emphasis 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.
257. SOCIAL INEQUALITIES IN SOCIETY 3 cr . Theoretical and methodological approaches and analysis of the consequences of systems of social inequalities. Emphasis on issues of social class, class structure, and mobility in American society.
260. CONSUMER CULTURE AND SOCIETY 3 cr. Examines the objects, subjects, and places of consumption, exploring a variety of topics such as food, tourism, and education. Addresses problems associated with consumer culture in addition to consumer movements that have achieved social change.
265. VICTIMS OF CRIME 3 cr . 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. 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.
280. CRIME \& GLOBALIZATION 3 cr. Examines the increasingly global nature of organized crime, its growing portfolio of illicit activities, such as human trafficking and drug trafficking, and its impact on state security. Also, how organized crime crosses borders, challenges states, damages economies and civil society, and ultimately weakens global democracy.
285. AGING, HEALTH, AND SOCIETY 3 cr . 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.
293. FORENSICS OF VIOLENT CRIME 3 cr. Prerequisite: SC 223.

Examination of the advanced forensic techniques and investigative considerations associated with violent crimes. Topics include homicide, mass murder, serial murder, sexual crime, terrorism, crime scene staging, bloodstain pattern analysis, and shooting incident reconstruction.
295. SOCIOLOGY OF DEATH AND DYING 3 cr. Death and dying from a lifecycle perspective, including grief, bereavement, coping, and widowhood.
299. SPECIAL TOPICS 1-3 cr. Specialized focus on selected areas and issues in sociology.
300. DEATH PENALTY 3 cr. 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.
303. WOMEN, GENDER RELATIONS, AND SPORTS 3 cr. Examination of the cultural and structural relationships of women and gender (relations) in sport and society. Particular focus on issues of culture, structure, and organization as they relate to masculinities and femininities, gender relations, and sex and sexuality. Survey of past and current developments of women and gender in sport in North America.
310. COMPARATIVE CRIME AND PUNISHMENT 3 cr. A comparativehistorical study of the bodies of law, crime rates, and structure and function of criminal justice systems in the U.S. and other western and eastern nations. Includes the study of criminal and juvenile law, policing, courts, and corrections.
315. SEXUALITY AND SEXUAL BEHAVIOR 3 cr. Prerequisite: one SC course. Social scientific examination of sexuality, including biological, social, cultural, and psychological aspects. Topics include sexual identity, expression, and variation; sources of beliefs and attitudes about sexuality; the influence of changing gender roles and norms; the social, psychological, and health consequences of sexual behaviors.
320. SEX AND GENDER 3 cr. Prerequisite: one SC course. 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; gender and globalization.
335. PRISONS AND HUMAN RIGHTS 3 cr. Study of U.S. prisons from a human rights perspective. Covers the history, function, and impact of prisons in the U.S., including the rise of mass incarceration and the relevance of prisons to inmate rehabilitation; also, alternatives to incarceration.
340. JUVENILE DELINQUENCY 3 cr. 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 . 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. Correctional procedures and types of penal institutions, policies, practices, and inequalities in supervising convicted offenders.
350. SOCIOLOGICAL RESEARCH METHODS I 3 cr. Prerequisites: SC 101 and two additional SC courses. Focuses on the logic of, procedures for, and issues relating to, theory testing in various types of social research. Topics include hypothesis construction, concept operationalization, research design, data collection, instrument construction, sampling techniques, and ethical concerns. Methods include surveys, in-depth interviews, observational field research, and content analysis.

## 351. SOCIOLOGICAL RESEARCH METHODS II: DATA ANALYSIS 3 cr.

Prerequisites: MT 122 and SC 350. How to do quantitative data analysis, including SPSS statistical analysis program coding/recoding variables, levels of measurement, hypothesis testing, estimation, sampling distributions, bivariate relationships, correlations, and regression. Requires an original quantitative research project.

## 352. PRESENTATION IN SOCIOLOGY AND CRIMINOLOGY 1 cr.

Corequisite: SC 351. Students learn how to present professionally their sociological research study developed in SC 351. Meets the Additional Presentation in the major (AP) requirement of the Integrative Core Curriculum.
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 RACE AND ETHNIC RELATIONS 3 cr. 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.
357. DIVERSITY IN SPORTS 3 cr. Provides a comprehensive perspective of diversity and inclusion within North American and international sport and sport organizations. Specifically, explores and analyzes how power and inequality based in diversity impacts people in sport and sport organizations with particular emphasis on race, class, gender, ethnicity, sexuality, and disability.
360. CITIES AND SUBURBS 3 cr. Prerequisite: one SC course. Growth of urbanization; patterns of ecology, social institutions, characteristic lifestyles, and current problems in the core city, suburbs, and the urbanized region. Analysis of the metropolitan regions, urban crime, characteristic urban ethnic patterns; worldwide trends in urbanization.
365. GLOBAL CORPORATE CRIME 3 cr. Analysis of moral issues in business from the perspective of organizational deviance; case analyses of international corporate and governmental deviance.

## 370. CULTURE, ENVIRONMENT, AND GLOBAL HEALTH 3 cr.

Prerequisite: one SC course. Patterns of disease and illness in relation to subsistence patterns and the natural environment; nutrition and life cycle effects of disease distribution; disease, economic development, and the epidemiological transition; cross-cultural and international medicine in a global context; current major global health problems.
380. ENVIROMENTAL JUSTICE AND HUMAN RIGHTS 3 cr. Examines the objects, subjects, and places of consumption, exploring a variety of topics such as food, tourism, and education. Addresses problems associated with consumer culture in addition to consumer movements that have achieved social change.

## 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: underlying causes, inequalities, consequences, and victims. Requires an applied research project where students develop and conduct a program evaluation for a nonprofit agency serving the inner-city poor. Service-learning component required.
388. FORENSIC SCIENCE IN CRIMINAL JUSTICE 3 cr. Prerequisites: SC 223 and 220 or 240 . Focuses on the basic concepts of evidence applied in the criminal legal system. The application of legal constraints and definitions on evidence and trial process. Court decisions illustrate the use of forensic evidence in the legal process.
399. ADVANCED SPECIAL TOPICS 3 cr. Prerequisite: one SC course. Indepth focus on specialized areas and issues in sociology.
400. SOCIOLOGICAL THEORY 3 cr. Prerequisites: SC 101 and one additional SC course. Analyzes classical and contemporary work in relation to three key sociological theorists: Marx, Weber, and Durkheim. Emphasizes economic inequality, formal rationality and culture, and social integration and regulation.
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. Prerequisite: SC 101 and one additional SC course. 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.
475. INTERNSHIP ANS 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 diversity, culture, and inclusion concentration, senior standing, and permission of instructor. Internship in human service, health, social justice, legal, or research setting; seminar on related personal and career growth, including reflection on internship.
490. MULTICULTURAL COUNSELING 4 cr. Prerequisite: one SC course.

Designed to promote a better understanding of counseling in contemporary America. Examines ethnicity/race relations, social-class effects, ageism, changing roles of women, sexual orientation, cultural mores, and their relevance to counselorclient 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 CRIMINOLOGY 4 cr. Prerequisites: completion of SC 435 or 440, senior standing, and permission of instructor and chair. Internship requires field placement in a law enforcement, criminal justice, legal, or research setting in which criminology work is currently conducted. Also includes a weekly seminar with ongoing reflection on and analysis of field experiences.

## 495. INTERSHIP AND SEMINAR IN FORENSIC BEHAVIORAL STUDIES

4 cr. Prerequisites: Completion of SC 223 and 220 or 240, senior standing, and permission of instructor and chair. Internship requires field placement in law enforcement, criminal justice, legal, or research setting in which forensics work is currently conducted. Also includes weekly seminar with ongoing reflection on and analysis of field experiences.
497. UNDERGRADUATE RESEARCH ASSISTANT 1 cr. Prerequisites: SC 101, junior or senior standing, permission of instructor and chair. Students become more familiar with the research process by assisting faculty with their research. Tasks may include literature reviews, subject recruitment, data collection, entering 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 SC courses, and senior standing. In-depth analysis of selected sociological topics. Responsibility for this seminar rotates among faculty members.

# Spanish and Hispanic Studies (SP) 

Professor: K. M. Gatto; Associate Professors: E. Luengo, M. L. Thornton


#### Abstract

The program in Spanish and Hispanic Studies is offered by the Department of Classical and Modern Languages and Cultures. The program comprises a rich curriculum in language, culture, civilization, literature, and film. An articulated 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 more than 400 million speakers, Spanish is the third most widely spoken language in the world. With more than 37 million native speakers of Spanish, the U.S. has become the world's fifth largest Spanish-speaking community. Spanish is a valuable adjunct skill to many major programs or careers. A working knowledge of Spanish is becoming essential for employment in many areas of the country. For students interested in business and trade, Spanish is the language of nineteen countries in Latin America, which currently constitute the fastest-growing import-export market for U.S. products. Spanish and Latin American cultures have made vast contributions to architecture, business, 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 horizon in a number of significant ways.


## Program Learning Goals in Spanish and Hispanic Studies.

Students will:

1. Communicate skillfully and effectively in Spanish:
a. engage in effective interpersonal communication.
b. engage in effective interpretive listening.
c. engage in effective interpretive reading.
d. engage in effective presentational speaking.
e. engage in effective presentational writing.
2. Demonstrate foundational cultural and linguistic knowledge of a targetlanguage area:
a. demonstrate knowledge of features of the culture of a target-language area, such as its art, literature, music, film, popular culture, traditions, and customs.
b. demonstrate knowledge of how aspects of the history, politics, religion, or geography of a target-language area relate to its culture.
c. compare linguistic features of the target language with those of English.
d. compare the culture and society of the target-language area with one's own.
3. Demonstrate emerging intercultural competence:
a. demonstrate an awareness of the interplay of personal identity and culture.
b. interpret an event, cultural product, or issue from the perspective of a worldview outside their own.

## Major and Minor Requirements

Major in Spanish and Hispanic Studies: 30 credit hours.

- SP 301 and SP 302 are required for the major.
- SP 410 fulfills the capstone requirement for the major and should be completed during the student's senior year.
- Students who begin the major at the 200 level: SP 201 and 202; SP 301 and 302; six additional 300-level Spanish courses, two of which may be replaced by related courses as defined below.
- Students who begin the major at the 300 level: SP 301 and SP 302; eight additional 300-level Spanish courses, two of which may be replaced by related courses as defined below.
- Related courses are those outside Spanish offerings which are closely linked to Spanish or Latin American culture, such as Art History, Classics, History, Philosophy, Political Science, IC literature and/or culture courses in translation as well as other language and literature courses. Courses other than Spanish must be approved in advance by the major advisor.

Minor in Spanish and Hispanic Studies: 15-18 credit hours.

- Students who begin Spanish at the 100 level or higher: Six courses at the 100, 200 and 300 levels approved by the advisor.
- Students who begin Spanish at the 200 level or higher: Five courses at the 200 and 300 levels approved by the advisor.

101. BEGINNING SPANISHI 3 cr. Intensive functional approach to the four language skills in a cultural context. Classroom, multimedia, computer-assisted instruction. For students with little or no previous study of Spanish or by placement test.
102. BEGINNING SPANISH II 3 cr. Prerequisite: SP 101 or equivalent or by placement test. Amplification of language skills in a cultural context. Added emphasis on reading and writing.
103. BEGINNING INDEPENDENT STUDY 1-3 cr. Supervised independent study of Spanish at the beginning level. May be repeated with a different topic.
104. 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 or by placement test. 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.
302. WRITING AND CREATIVITY 3 cr. Development of writing ability in Spanish. Fundamentals and practice of creative writing across genres. Computer technology heavily utilized in the advanced development of different writing styles.

## 303. ORAL INTERPRETATION OF HISPANIC LITERATURE 3 cr.

Problems in analysis, criticism, interpretation, and communication of literature. Inclass oral interpretation of various types of prose, drama, poetry.
305. SPANISH PRONUNCIATION 3 cr. Systematic analysis and practice of the sounds of spoken Spanish.
306. SPANISH FOR THE PROFESSIONS 3 cr. Development of linguistic skills in Spanish and cultural knowledge of the Spanish-speaking world to enhance professional careers in business, medicine, law, and other related fields.

## 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.308. HISPANIC CULTURE THROUGH FOOD 3 cr. Exploration of different cuisines throughout the Hispanic world and their cultural history and significance.
309. HISPANIC CULTURE THROUGH MUSIC 3 cr. Exploration of musical genres, themes, and singers throughout the Hispanic world.
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.
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 and institutions from colonial times to the present. Discussion of various aspects of Latin American culture and intellectual development, especially as found in language, literature, and art forms.
315. READINGS IN SPANISH AND LATIN AMERICAN LITERATURE 3 cr . Introduction to close critical reading of literature in Spanish. The narrative, poetic, and dramatic texts come from various periods of Spanish and Latin American literature.
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.
324. LATIN AMERICAN FEMINIST VOICES 3 cr. Examination of the awakening of feminine and feminist consciousness in the literary production of Latin American women writers, particularly from the 1920s to the present.

## 325. SELECTED READINGS FROM PENINSULAR SPANISH

LITERATURE 3 cr. Overview of the major writers of Spain through short readings of different genres from the Middle Ages to the present.

## 327. SELECTED READINGS FROM LATIN AMERICAN LITERATURE

$3 \mathbf{c r}$. Overview of the major writers of Latin America through short readings of different genres from the $19^{\text {th }}$ century to the present.
329. MIGRANT VOICES 3 cr. Exploration of the cultural production by and about Spanish-speaking immigrants around the globe.
331. 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.
332. ADVANCED WRITING AND CREATIVITY 3 cr . Theory and practice of correct grammatical usage of the written word. Exercises in advanced composition and creative writing.
335. CONVERSATION THROUGH CINEMA 3 cr. Development of communicative competence through advanced discussions of films to improve oral proficiency.

## 336. CONTEMPORARY MEXICAN LITERATURE AND CULTURE 3 cr.

 Exploration of major trends in Mexican fiction, film, and music of the $20^{\text {th }}$ and $21^{\text {st }}$ centuries with special focus on post-revolutionary national identity, marginality, gender, migration, and drug wars.338. CERVANTES 3 cr . Study of the works of Cervantes, with special attention to the Quijote and the Novelas ejemplares.

## 340. CONTEMPORARY NARRATIVE OF ARGENTINA, CHILE, AND

 URUGUAY 3 cr. Postmodern fiction and urban chronicles from the last two decades in Argentina, Chile, and Uruguay, where the topics of exile and collective memory, marginality, gender, and violence find expression in the post-dictatorship imagination.342. POETRY AND NARRATIVE OF THE GOLDEN AGE 3 cr. Poetry, the mystics, and the beginnings of the novel, with special emphasis on the picaresque.
343. SPANISH SHORT STORIES 3 cr. Spanish narrative trends from the $19^{\text {th }}$, $20^{\text {th }}$, and $21^{\text {st }}$ centuries. Authors include Juan Valera, Emilia Pardo Braźan, Ana María Matute, Camilo José Cela, Carmen Laforet, Soledad Puértolas, Mercedes Abad.
344. LATIN AMERICAN SHORT STORY 3 cr . Major trends in the contemporary short story in Latin America. Authors include Horacio Quiroga, Jorge Luis Borges, Juan Rulfo, Julio Cortázar, Gabriel García Márquez, Carlos Fuentes, and Isabel Allende.
345. CONTEMPORARY SPANISH DRAMA 3 cr . Innovative dramatic works as manifestations of issues related to Spanish society since the early $20^{\text {th }}$ century: the Spanish Civil War and its effects, political repression and the quest for freedom, gender and sexuality, memory, and strategies toward artistic innovation. Students may stage a performance of one of the plays studied.
346. CONTEMPORARY LATIN AMERICAN DRAMA 3 cr. Representative works of contemporary Latin American drama. Students may stage a performance of one of the plays studied.
347. LITERATURE OF MODERN SPAIN 3 cr. Outstanding writers from Spain's Generation of 1898 to the present. Selections from prose, poetry, and drama writers such as Miguel de Unamuno, Antonio Machado, Juan Ramón Jiménez, Gerardo Diego, Federico García Lorca, Miguel Delibes, Ana María Matute, José Ruibal, Carmen Laforet, Carmen Martín Gaite, Maruja Torres.
348. INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Supervised independent study. May be repeated with a different topic.
349. SPECIAL TOPICS 1-3 cr. Occasional course on a selected topic announced in advance. Designed to respond to student and faculty interest in specific themes or issues not otherwise covered in the curriculum.
350. SENIOR CAPSTONE 1 cr . Research project chosen in consultation with student's advisor in Spanish. The experience should reflect both the student's interest in Spanish and the courses s/he has taken to fulfill the major. Student will produce a written thesis in Spanish and also give an oral presentation in Spanish to the Spanish faculty.


# The Mike Cleary Major in Sports Studies (SPS) 

Associate Professors: K. M. Manning (Chair), G. S. Farnell; Assistant Professor: J. Nagle Zera; Practicum/Internship Coordinator: B. C. Beigie

The major in Sports Studies (SPS) is offered by the Department of Exercise Science and Sports Studies.

Sports and sports-related business are significant aspects of society across the continuum of age and time, encompassing the world in which we live-physically, emotionally, mentally, and socially. Sports can be found in all corners of our lives, e.g., school, community centers, business, politics, and world relations. The Mike Cleary Major in Sports Studies is designed to develop and prepare the John Carroll graduate to make a significant contribution to others through, and with, sports: to recognize and respect that sports play a vital role in our society and world-from business to education, to health and wellness; and to follow in the footsteps of John Carroll alumni who have distinguished themselves in sports and sports-related roles such as athlete, coach, athletic trainer, physician, allied health professional, administrator, and sports-information professional. The major in Sports Studies provides our graduates the knowledge, skills, and dispositions to become a leader with, and for, others in sports and sports-related careers.

The major in Sports Studies is one of two majors offered within the Department of Exercise Science and Sports Studies. The overall program is committed to the value and importance of high-quality physical activity in the lives of all people and, to that end, provides a comprehensive curriculum that encourages the development of knowledge, skills, and dispositions across the continuum of physical activity. The ESSS program is grounded in the Ignatian ideal of the dignity of the individual and promotes goals and outcomes that respect this dignity and strives for the maximum achievement of individual potential.

Candidates will receive in-depth preparation for careers in sports and sports-related positions in such areas as sports administration and management, sports, fitness, and wellness for diverse populations. The curriculum focuses on administration, management, program development and implementation, leadership, and working with diverse populations. In addition to the course work, candidates for the major will experience fieldwork and internships that enhance their sense of vision and mission in connection with their career. The Sports Studies major is composed of $27-28$ hours of core courses, 15 hours of course work within a selected program, and 6 hours of electives. Candidates selecting a major in Sports Studies are encouraged to pursue a minor or additional course work in business, exercise science, communications, entrepreneurship, or psychology to enhance career and graduate school options.

## Program Learning Goals in Sports Studies.

Students will have the knowledge, skills, and dispositions to be able to:

1. Demonstrate their knowledge of history, philosophy, mission, personal and professional identity.
2. Demonstrate their knowledge of working with diverse populations within multiple types of sports administration and sports-related settings, and provide evidence of their ability to be an effective leader.
3. Demonstrate their knowledge of organization, leadership, and planning for a variety of situations.
4. Demonstrate their knowledge of research and the appropriate use of research in papers and projects, and for problem-solving and critical thinking.
5. Demonstrate their knowledge related to the collection and interpretation of data and the effective use of date-driven decision-making in an ethical and moral manner with attention to the decision-making process and its impact on others.
6. Demonstrate their knowledge related to moral and ethical behavior in decisionmaking of sports professionals in leadership positions.
7. Demonstrate their knowledge in a professional internship setting in sports administration, coaching, or working with diverse populations, through planning, organization, decision-making, reflection, oversight and implementation of rules, policies, and procedures.

## Major Requirements: 48-49 credit hours

Sports Studies Core: $27-28$ credit hours, SPS 201, 232, 300, 312, 408, 413, 497; Select one: SPS 435, PL 311, or PL 312; Select one: MT 122, MT 229, EC 210, or SPS 122.

Students must choose at least one of the following two curricular programs:

1. Sports and Athletic Administration: 15 credit hours. Select one for 6 credit hours: EC 201/201L; AC 201/201L; or EC 201/AC 201.

Required: BI 100, BI 200, MHR 325, MK 301, or COMM 270.
2. Sports, Fitness, and Wellness for Diverse Populations: 15 credit hours. EPA 208, 229, 340, 420, 432.

Electives: minimum of 6 credit hours: CO 226, EN 299A, EPA 200, 208, 229, 340, 411, 420, 432, PS 310, SC 285, SPS 203, 215, 301, 303.

## Requirements for acceptance and continuation as a Sports Studies major:

## The application process includes:

## 1. Application Process

- A formal meeting with the chair of Exercise Science and Sports Studies.
- An evaluation of academic course work.
- A statement of professional goals and expectations related to the Sports Studies major and curricular program selected.
- The fulfillment of the following academic requirements:
- 2.0 or higher major GPA
- 2.0 or higher overall GPA


## 2. Acceptance Decisions

- Accept: Candidate may continue to take course work within the major course of study.
- Conditional Acceptance: Candidate may continue to take course work within the major course of study, but certain restrictions have been placed on continuation in the program. Conditional acceptance may remain in effect for no longer than one academic year.
- Defer: 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. Field Work

- Candidates will be required to complete fieldwork placements in career-related settings.


## 5. Capstone Experience: Internship

- Candidates, during the junior year, must identify a specific internship experience that aligns with intended professional and/or graduate school goals.
- Prior to the beginning of the internship, candidates are responsible for the following:
- Meeting with the John Carroll internship director for approval of the specific internship experience.
- Obtaining approval from the proposed internship site supervisor for completion of all internship requirements.
- Completion and submission of all required formal documentation to the John Carroll internship director for final approval of the internship experience.
- Approval of the internship experience by the John Carroll internship director must be obtained in writing prior to beginning the experience.
- Please consult the Internship Handbook for specific details and required forms.
- If a candidate is not approved for an internship, additional content-area work will be substituted.


## 6. Exit Assessment

- Candidates for graduation will complete a formal exit interview in their final semester of course work.
- Candidates for graduation will complete a formal written program evaluation specific to their major.


## SPORTS STUDIES (SPS)

## Theory and Practice Courses

122. STATISTICS IN SPORTS 3 cr. Finding and posing statistical questions related to sports, critical thinking about statistical information in sports, and statistical tools for representing data, drawing inference from data, and appreciating sources of error for statistics within sports. Ethical issues in sports statistics. Use of appropriate software.

## 201. FOUNDATIONS OF EXERCISE SCIENCE AND SPORTS STUDIES

3 cr. Major ideas, institutions, movements, and individuals in exercise science, physical education, and sports studies. Examines potential careers in exercise science, physical education, sports studies, and allied health professions. Includes a practicum experience.
203. SOCIOLOGY OF SPORTS 3 cr. Exploration of the cultural and structural relationships of sport to society. Particular attention to issues of race, class, gender, sexuality, crime and deviance, education, religion, economics, and politics as they relate to sport. Also, the historical development of other social institutions.
213. TEACHING AND COACHING INDIVIDUAL SPORTS 3 cr. Examines prevailing theories and methods used by successful coaches at all levels of competition in the areas of: developmentally appropriate styles for teaching and coaching; teaching individual sport skills; preparing for teaching and coaching sessions; developing conditioning programs for specific sports, and effective gameday coaching. Also, technology used to enhance coaching; learning and current research in coaching.
214. TEACHING AND COACHING TEAM SPORTS 3 cr. Examination of prevailing methods used by successful coaches at all levels of competition in the areas of: teaching team sport skills, preparing for teaching and coaching; developing conditioning programs for specific team sports; technology used to enhance coaching, effective game-day coaching, and research on effective coaching.

## 215. PSYCHO-SOCIAL ASPECTS OF EXERCISE SCIENCE \& SPORT 3

cr. Overview of principles, theory, and practice related to the psychological and sociological factors involved in exercise, fitness, play, and sport.

## 232. RESEARCH METHODS IN EXERCISE SCIENCE AND SPORTS

STUDIES 3 cr. Prerequisite: QA Course. Research methodology used in exercise science, allied health and sports studies. Emphasis on the individual aspects of the research process, such as the use of research databases, developing reviews of literature, developing research questions. Requires the development of a research proposal.
299. SPECIAL TOPICS 1-3 cr. Prerequisite: permission of instructor. Topics are published in the schedule of classes for each term.

## 300. QUALITIES AND CHARACTERISTICS OF LEADERSHIP IN

COACHING 3 cr. Explores major leadership theories and models, and practical application of theories; examines methods used by successful coaches in different sports throughout history; also, leadership qualities focused on individuals, teams, and organizations.
301. DIVERSITY IN SPORTS 3 cr. Comprehensive overview of diversity and inclusion within North America and international sport and sport organizations. Analyzes the ways people in sport and sport organizations can differ, and how power and inequality based on diversity impacts academic and occupational experiences and outcomes. Covers issues of non-dominant groups and historically under-represented groups in U.S.; emphasis on race, class, gender, ethnicity, sexuality, and disability.
303. WOMEN, GENDER RELATIONS, AND SPORTS 3 cr. Examines the cultural and structural relationships of women and gender (relations) in sport and society. Focuses on issues of culture, structure, and organizations as they relate to masculinities and femininities, gender relations, and sex and sexuality. Surveys historical and current developments of women and gender in sport in North American Society.
312. SPORTS GOVERNANCE 3 cr. Critical analysis of sports governance at multiple levels, including the development and implementation of policies and procedures at different levels of competition, e.g., pros, college, high school; evaluation of how contemporary sport deals with issues such as gender, race, ethnicity, and national identity; and development of a perspective on future issues in sports governance.

## 413. AREAS AND FACILITIES IN RECREATION AND SPORTS 3 cr .

Introduction to facility management for health, fitness, physical activity, recreation, and sport. Organization and management principles; policy and procedure development; ethical decision-making; planning for success; special event planning; and management of human resources, the marketplace, finances, risk, programming, and volunteers.

## 435. ETHICAL PROBLEMS IN EXERCISE SCIENCE AND SPORTS

STUDIES 3 cr. Prerequisites: acceptance into Exercise Science or Sports Studies major; senior standing. The nature of ethics through the study of ethical issues in athletics, physical education, and exercise science, e.g., use of performanceenhancing drugs, fitness guidelines for youth sports, recruiting, and professionalism.
440. INDEPENDENT STUDY 1-3 cr. Prerequisite: permission of instructor. Intensive study of problems and concerns in a selected area of sports or sportsrelated topics.
497. INTERNSHIP AND SEMINAR 3 cr. Prerequisites: acceptance into Exercise Science or Sports Studies major, senior standing; permission of instructor; approval of proposed plan by internship director. Candidates select an internship assignment in line with graduate school focus or interest, e.g., athletic training, strength and conditioning, physical therapy. Portfolio development and completion of internship required.


# Supply Chain Management (SCM) 

Professors: P. R. Murphy, Jr., C. A. Watts (Chair); Associate Professor: B. Z. Hull; Assistant Professor: S. Brockhaus; Visiting Instructor: A. Marculetiu


#### Abstract

The Department of Management, Marketing, and Supply Chain is dedicated to educating and serving its students, the University, and the community. The primary goals of the supply chain management faculty are to achieve national recognition, and to provide students, the University, and the business community with comprehensive, up-to-date information about supply chain management 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 supply chain-related organizations.


Value creation is at the heart of Supply Chain Management (SCM). SCM is key to conceptualizing, designing, and manufacturing the products we cherish and delivering them to homes on time and in one piece. SCM is the oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. SCM also involves the reverse flow of materials, information, and finances. Effective supply chain management improves business performance and provides value to customers. Supply chain management includes transportation, warehousing, channel management, purchasing, inventory control, order processing, and customer satisfaction.

The field is extensive, and many businesses are potential employers. There is a shortage of college graduates to fill available entry-level positions, and these opportunities are expected to grow (over 1.5 million openings in the next several years) because of the increasing emphasis on the effective and efficient movement of goods and information. Our SCM program incorporates the best-in-class methods, concepts, and tools that companies need to gain a competitive advantage. Many students have internship opportunities in SCM, and these opportunities provide the student with valuable practical experience in supply chain management.

## Program Learning Goals in Business Supply Chain.

Students will have:

- Knowledge of supply chain management and supply chain.
- Skills necessary to identify opportunities and challenges associated with supply chain management.
- Ability to differentiate acceptable supply chain management practices from unacceptable supply chain management practices.
- Ability to apply supply chain management concepts to improve operational effectiveness and efficiency.

The SCM curriculum complements other business majors. The supply chain management major intends to provide students with the foundational knowledge, skills, and abilities to pursue these goals. Knowledge, skills, and abilities reflect current thinking in the education discipline; knowledge refers to what students know, skills refers to what students can do, and abilities refers to things students can do in a more complex and lasting way, often combining knowledge and skills.

## Major Requirements <br> Major in Supply Chain Management: A total of 61-64 credit hours, as described below.

Business Core: 40-43 credit hours, including MHR 461.
Major Courses: 21 credit hours. MK 309 or BI 341, or equivalent course approved by the supply chain management faculty; four courses from SCM 328, SCM 350, SCM 361, SCM 405, SCM 440; one course chosen from MK 302 or MHR 483; one course chosen from MK 402 or BI 371.
301. SUPPLY CHAIN AND OPERATIONS MANAGEMENT 3 cr. Prerequisite:

EC 210 or MT 122 or MT 228. The core elements of SCM: customer value, collaboration, and the process of transforming raw materials into successful products. Introduces the three primary functions of supply chain activities: purchasing, operations, and logistics; also, the qualitative and quantitative tools to facilitate and analyze underlying processes. How to leverage concepts such as Just-In-Time, Process Design, and Inventory Control in order to turn great ideas into needed products and services.
328. SUPPLY CHAIN LOGISTICS 3 cr. Prerequisites: EC 201-202 or permission of instructor. Analysis of business supply chain 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.
350. SUPPLY CHAIN TRANSPORATION 3 cr. Prerequisites: EC 201202 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 SUPPLY CHAIN 3 cr. Prerequisite: SCM 328. Principles and practices of supply 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 SUPPLY CHAIN MANAGEMENT 3

cr. Prerequisite: SCM 328 or as announced. Contemporary topics in supply chain management not covered in depth in other business supply chain courses. Specific topic, method of presentation, and student requirements will be designated by the seminar leader.
440. PROBLEMS IN SUPPLY CHAIN MANAGEMENT 3 cr. Prerequisites: SCM 328 and BI 200. The design and implementation of supply chains to maximize their effectiveness and 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: supply chain management major and overall GPA of 3.0 or higher; permission of chair and faculty member. Research project supervised by a full-time SCM faculty member willing to act as advisor. The student selects an aspect of SCM, 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 department guidelines established for such study.


# Theology and Religious Studies (TRS) 

Professors: P. Lauritzen, S. E. McGinn (Chair), P. K. Nietupski, E. P. Hahnenberg, Z. Saritoprak; Assistant Professor: K. Tobey

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 provides the opportunity for students to choose 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 two appropriately designated 3-credit TRS courses, one lower-division and one upper-division.

TRS courses at the 100,200 , 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. Lower-division courses (100- and 200-levels) involve broad surveys of one or more issues and topics fundamental to the field while upper-division courses (300- and 400 -levels) have more specific and limited foci. The 300 -level Core courses allow students to engage in more in-depth study of one or more of the issues and topics significant to a contemporary understanding of theology and/or religious studies.

Enrollment in 400-level courses typically is restricted to TRS majors and minors; other students may enroll with 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 Bediüzzaman Said Nursi Chair in Islamic Studies, the F. J. O'Neill Charitable Corporation Fund (for the Ignatian Spirituality Institute), and the Jack and Mary Jane Breen Chair in Catholic Systematic Theology. For details on these programs, see pages 454-460.

The department also collaborates with the Borromeo Seminary Institute (BSI) in offering undergraduate theology courses for pre-seminarians and other interested undergraduates. For details on the BSI program, including the current list of BSI adjunct faculty, see page 167.

## 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 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.

## Program Learning Goals in Theology and Religious Studies.

Students will:

1. Critically analyze the culturally and globally diverse dimensions of religious experience as expressed in sacred texts, art, ritual practice, ethical commitments, and social structures.
2. Appreciate how culturally and globally diverse religious traditions provide resources for responding to injustice and living ethically.
3. Demonstrate facility with standard practices of academic research in theology and religious studies.

## Major and Minor Requirements

Major in Theology and Religious Studies: 36 credit hours.
Two courses, one lower-division and one upper-division, in each of the following areas:

Biblical Studies (TRS 200-209, 300-309, 400-409)
History of Christianity \& Sociology of Religion (TRS 220-229, 320-329, 420-429)
Systematic Theology (TRS 230-239, 330-339, 430-439)
Religious Ethics (TRS 260-269, 360-369, 460-469)
World Religions:

- Judaism (TRS 210-219, 310-319, 410-419)
- Islam (TRS 240-249, 340-349, 440-449)
- Asian Religions (TRS 250-259, 350-359, 450-459)

One or more electives (3 credits)
Senior Seminar (TRS 493 = I-Core Capstone, Advanced Writing in the Major, and Oral Performance course).
Courses in the Integrative Core Curriculum may be used to meet 200- and 300-level course requirements for the TRS major.
Although not required, majors are strongly encouraged to engage in internships and to study abroad.

Minor in Theology and Religious Studies: 18 credit hours.
Three courses ( 9 credits), one each from three of the following areas:
Biblical Studies (TRS 200-209, 300-309, 400-409)
History of Christianity \& Sociology of Religion (TRS 220-229, 320-329, 420-429)

Systematic Theology (TRS 230-239, 330-339, 430-439)
Religious Ethics (TRS 260-269, 360-369, 460-469)
World Religions:

- Judaism (TRS 210-219, 310-319, 410-419)
- Islam (TRS 240-249, 340-349, 440-449)
- Asian Religions (TRS 250-259, 350-359, 450-459)

At least two of the above must be at the 300- or 400-level
Two or more electives ( 6 credits)
Senior Seminar (TRS 493 = I-Core Capstone, Advanced Writing in the Major, and Oral Performance course)
Courses in the Integrative Core Curriculum may be used to meet the 200and 300-level course requirements for the TRS minor.

## 101. INTRODUCTION TO THEOLOGY AND RELIGIOUS STUDIES 3 cr.

Introduction to the academic study of theology and religion. 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.
200. HEBREW BIBLE 3 cr. Historical and cultural environment of the Jewish Bible (the collection of scriptures in the Torah, Nebïim, and Kethubim, or "Tanakh," which Christians call the "Old Testament"), its nature and composition, and its religious and theological developments.
205. NEW TESTAMENT 3 cr . Development and composition of the New Testament; the historical, cultural, and religious environments out of which it arose; and the various theological perspectives found within it.
210. INTRODUCTION TO JUDAISM 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.
222. AMERICAN CHRISTIANITIES 3 cr. Development of Christianity in the U.S. from 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 grew, as well as African-American theology.
225. RELIGION IN POPULAR CULTURE 3 cr. Examines the dynamic relationship between religion and popular culture by investigating the role of religion in such "secular" phenomena as mainstream U.S. literature, music, and film. Emphasis on the particular influence that Catholic authors, actors, and musicians have had in shaping contemporary U.S. popular culture.

## 226. RELIGIONS OF OHIO \& THE WESTERN RESERVE 3 cr.

Investigates the rich religious history of Ohio and the Western Reserve, which has served as an incubator for several well-known religious groups and significant religious modes, from the ancient mound builders to the present day. Case studies raise broader theoretical concerns about the role of place in the religious lives of individuals and communities.
230. CONTEMPORARY CATHOLIC THEOLOGY 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.
232. JESUS: HISTORY AND THEOLOGY 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. The theological significance of saints in the Roman Catholic tradition. 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.
236. CHURCH AND MINISTRY 3 cr. Survey of the theology of church and ministry taking into account the biblical background and historical developments, and focusing on issues and ideas surrounding ministry today. Locates ministry and church mission within a broadly Christian ecumenical perspective, with an emphasis on the Roman Catholic experience.
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 Church Magisterium, ethical norms, and morality. Offered at the Center for Pastoral Leadership.
240. INTRODUCTION TO ISLAM 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.

## 249. FAITHS OF ABRAHAM: JUDAISM, CHRISTIANITY, AND ISLAM

3 cr. Cross-cultural 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. Involves experiential learning.
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 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.
262. RELIGION, FREEDOM, AND LAW 3 cr. Introduction to issues framed by legal and religious context. How morality and religion contribute to ethical dilemmas for individual lawyers; history of American interface between religion and law; how religion and law address similar questions in different ways; dilemmas pertaining to morality and freedom where religion and law interface; public forum and judicial system's approach to religious issues; religious topics debated and litigated in public life.

## 264. SOCIAL JUSTICE \& THE ECONOMY: MORALITY \& MONEY 3 cr.

 Explores the relationships between religious ethics and economics by critically examining the religious, moral, and ethical assumptions underlying various economic systems. Employs the liberation hermeneutic of "human flourishing" as a lens to read and interpret relevant economic and theological texts. Usually involves service-learning.268. CATHOLIC MORAL THEOLOGY 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. Offered at the Center for Pastoral Leadership.
269. 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.
270. CHRISTIAN SPIRITUALITY 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. Involves experiential learning.
271. SOUL FOOD \& FOOD FOR THE SOUL 3 cr. African-American spirituality, religion, and identity formation through religious and food experiences within the family and the greater African-American cultural group. History of food availability and preparation. Film portrayals of African-American family unity maintained through cultural traditions related to food. Involves experiential learning. Linked with IC 208 in the "Engaging Human Experience" division of the Integrative Core Curriculum.
272. SACRED QUEST 3 cr. Introduces the academic study of religion by exploring the various ways individuals and communities articulate their experience of the divine. Moves from a general consideration of the nature of religious experience to the ways in which this experience takes shape in various sacred scriptures, traditions, theologies, and moral claims.
273. ARTFUL SPIRITUALITY 3 cr. Exploration of the intersection of spirituality and creative expression, the evolution of Christian spirituality and its expression through the arts. Imaginative expression through art-making can enrich spirituality, facilitating deep, authentic encounters with God. A CAPA course in the Integrated Core Curriculum.
274. THEOLOGY IN MUSIC 3 cr . Broad survey of church music as a carrier of theology and spirituality, from the early church to Vatican II. Examines the history of western church music to understand the relationships between music, worship, theology, and spiritual life, within the cultural and historical settings of the church. Involves experiential learning. A CAPA course in the Integrated Core Curriculum.
275. 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. May be repeated with a different topic.
276. THE ANCIENT NEAR EAST (HS 300) 3 cr. History, culture, and religions of Egypt, Mesopotamia, and Syro-Palestine.
277. 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.
278. THE BIBLE THROUGH THE EYES OF THE HUNGRY 3 cr. The Bible presents the poor as objects of God's special protection, and views their treatment by the wider society as the litmus test of whether a society is righteous or wicked. Focus on the Bible's critique of the dynamics of food scarcity, displacement, exile, drought, despair, and other basic hungers of the human race. Typically involves service learning.
279. JESUS IN FILM \& HISTORY 3 cr. 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. Explores 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 text in the West, 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. May be repeated with a different topic.
310. JEWISH MESSIAHS 3 cr. Surveys the broad outlines of Messianism throughout Jewish history and how it has changed shape and form, interacted with other belief structures, become secularized and re-enchanted again. Examines its place in modern politics (especially Zionism) and how these developments affect contemporary politics, history, and theology.
311. 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.
312. 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. May be repeated with a different topic.
313. HISTORY OF THE PAPACY 3 cr. Origins of the papacy in the Roman world; growth of papal influence in the Early Middle Ages; papal responses to, and interactions with, Protestantism, the Catholic Reformation, absolute monarchy, the Enlightenment, European revolutions, European totalitarianism, the Third World, and modern democratic trends.

## 323. LIFE, TIMES, AND THEOLOGY OF MARTIN LUTHER KING, JR.

$\mathbf{3}$ 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 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 $18^{\text {th }}$ century; impact of the Industrial Revolution; the establishment of modern Christmas; modern commercialization; contemporary developments.
326. HISTORY OF THE IDEA OF EVIL 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, the demonic and Gothic, and modern theological and scientific approaches.
327. MINORITY RELIGIONS 3 cr. Examines the histories, traditions, and lived religious practices of select minority religious groups by exploring their interaction and exchange with wider American culture (e.g., through architecture, commerce, food, law, and media). Case studies consider such questions as the shifting contextual meaning of the labels minority/majority and marginal/central; ways American religious groups affect one another while maintaining their distinct identities. Involves experiential learning.
328. THE FRANCISCAN MOVEMENT 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.
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. May be repeated with a different topic.
330. MODELS OF GOD 3 cr . Comparison of several models for understanding God and God's relations to the world.
331. SIN, GRACE, AND WHOLENESS 3 cr. Introduction to theological anthropology, the study of the human being in relation to God and in conflict with evil.
332. CHRISTOLOGY 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 crucial concerns of today's culture.
333. UNDERSTANDING CHURCH 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 3 cr. Introduction to the concept and nature of "sacrament" and to the historical, liturgical, and theological development of the seven sacraments. Emphasis on 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" and its role in the 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.
337. GLOBALIZATION, THEOLOGY, \& JUSTICE 3 cr. Analyzes contributions of contemporary Catholic theologians and Roman Catholic tradition on issues related to globalization, such as economics, ecology, consumerism, migration, human trafficking, and interreligious conflict. Approaches these issues through Catholic social teaching and evaluates responses based on the principle of the common good and the potential impact upon the most vulnerable members of society. Typically involves service learning.
338. CATHOLICISM IN A DIGITAL AGE 3 cr . The theological significance of the digital revolution for the Catholic experience of faith, focusing on communication technologies and their implications for the church as a global religious institution. Surveys the historical impact of technological innovation on the church and explores in depth theological topics currently being rethought in light of technological change.
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. May be repeated with a different topic.
341. ISLAM IN AMERICA 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.
344. ISLAMIC SPIRITUALITY 3 cr. Explores the spiritual tradition of Islam, also known as Sufism, focusing on three major themes: the emergence of Islamic spirituality through the Qur'an and hadith; the lives of Islamic mystics such as Harith al-Muhasibi (d. 857), Junayd al-Baghdadi (d. 910), Abu Hamid al Ghazali (d. 1111), and Jalal al-Din Rumi (d. 1273); and mystical interpretations of Islamic verses.
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. May be repeated with a different topic.
350. SPECIAL TOPICS IN INTERRELIGIOUS STUDIES 3-12 cr. Specific content and number of credits to be announced when offered. See the Tuohy website (http://go.jcu.edu/tuohy) for further information. May be repeated with a different topic.
351. SILK ROAD RELIGIONS 3 cr. Focuses on religion, art, and politics on the international trade routes of East, Central, and South Asia, from the second through the twentieth centuries. Representative examples are presented chronologically and carefully situated within their political and religious contexts. Interdisciplinary methodology includes consideration of histories, religions, arts, and politics of the times.
352. PILGRIMAGE 3 cr. Examines pilgrimage as a unifying theme in the study of world religions and as a key component of religious life. Treats pilgrimage as a perspective on the unity of spirit, mind, and body as an expression of the inseparability of individuals and larger religious communities; uses it as a point of departure to investigate symbols, rituals, myths, laws, doctrines, faiths, and visions manifested in world religions.
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. May be repeated with a different topic.
362. RELIGION, ETHICS, AND PUBLIC POLICY 3 cr. Focuses 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.
363. BIOETHICS 3 cr. Examines the ethical principles and forms of moral reasoning that typically guide decisions in health care and frame public policy debates generated by contemporary biomedicine. Includes materials from both religious and secular traditions of thought, with particular attention to Catholic teaching on bioethical issues (including assisted reproductive technology, euthanasia, and stem cell research).
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.
365. JUST \& UNJUST WAR 3 cr. Introduces the ethical issues posed by the use of violence. Particular emphasis on the just war tradition, which has significantly shaped contemporary international law and military ethics. Examines some of the canonical texts of just war tradition, explores the evolution of the tradition, and investigates how contemporary terrorism challenges the tradition.
367. RELIGION, TERROR, \& CULTURE WARS 3 cr. Ethical and practical issues regarding the importance of cultural memory and the destruction, recovery, and protection of cultural assets in a politicized global environment. Examination of past and present national and international threats to cultural assets.
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. Typically offered at the Center for Pastoral Leadership.
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. May be repeated with a different topic.
371. IGNATIAN SPIRITUALITY: ORIGINS \& 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 through the creation of the Jesuit order, the mission and ministry of the first Jesuits, the development of Ignatian spirituality, and its contemporary relevance. Involves experiential learning.
372. THEOLOGY OF AFRICAN-AMERICAN SACRED MUSIC 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.
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. May be repeated with a different topic.

## 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. May be repeated with a different topic.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. May be repeated with a different topic.

Note: Registration in 400 -level courses is open to TRS majors/minors and graduate students, and to other students with permission from the department chair.

## 400. ENGAGING SCRIPTURES: 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.
405. "REJECTED BOOKS" OF THE BIBLE 3 cr. Introduction to the noncanonical 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. Ethical perspectives and prescriptions conveyed by the New Testament. The teaching and praxis of Jesus, including 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 its contribution to contemporary ethical debates.
408. LIFE \& LETTERS OF PAUL OF TARSUS 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. Rise of Christianity in Roman Syria and Asia Minor (modern Turkey) through study of significant literature and sites. Traces Christian development from northern Palestine through Syria, Cappadocia, and Anatolia, to Ephesus, the "metropolis of Asia." Often done "on location" during 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 concepts key to understanding how theology works: faith, revelation, scripture, symbol, tradition, community, and method. Explores how these concepts work in the writings of significant theologians. Places these thinkers within their historical and cultural worlds to help students reflect on what it means to do theology out of their unique commitments, contexts, and life experiences.
431. READINGS IN FEMINIST THEOLOGY 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 $18^{\text {th }}$ century to the present.

## 449. FAITHS OF ABRAHAM: JUDAISM, CHRISTIANITY, AND ISLAM

$\mathbf{3} \mathbf{c r}$. Cross-cultural 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. Involves experiential learning.
491. INTERNSHIP 1-4 cr. Prerequisite: permission of department chair. An internship/practicum experience in the field(s) of ministry, religious studies, and/or theology. Involves supervised work at a religiously-affiliated institution or agency engaged in direct service to, and/or advocacy in, the local community. Each student is placed in a local institutional context best suited to individual skills and interests, receives on-the-job mentoring, and engages in guided reflection through a written journal and weekly seminar discussions. May be repeated with a different topic or placement.
492. INDEPENDENT STUDY 1-3 cr. Prerequisites: permission of department chair. In-depth study on a tutorial basis of a particular problem, approved by the chair and directed by a member of the department. Requires a research paper.
493. SENIOR SEMINAR 3 cr . Prerequisite: permission of department chair. Capstone seminar for TRS majors and minors. Normally taught in fall semester.
494. THE CATHOLIC EXPERIENCE 3 cr. Prerequisite: permission of department chair. Capstone seminar for students in the Catholic Studies program. Normally taught in spring semester.
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. May be repeated with a different topic.


## 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 helps supervise the minor in entrepreneurship, which was developed with the assistance of the Burton D. Morgan Foundation to leapfrog other programs in entrepreneurship 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. Thus, the center offers students, regardless of 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 (EA), a group of local private company business owners and professionals. 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 Bediüzzaman Said Nursi Chair in Islamic Studies

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 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.
2. 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, Dr. Raj Aggarwal, and Dr. LeRoy Brooks. The current chairholder is Dr. William Elliott.

## 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 inaugural Smiley chairholder is Dr. Robert A. Giacalone.

## 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 and Mary Tuohy-dedicated Catholics, active members of the National Conference of Christians and Jews, and zealous promoters of religious understanding. 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. Making the Tuohy lectures available to the public through print and on-line media.

Recent Tuohy Fellows and Lecturers have included such major figures in theological scholarship as Anne Clifford, C.S.J., Kelley E. Spoerl, George M. Smiga, William S. Campbell, Thomas Michel, S.J., David Barr, Right Reverend Michael Louis Fitzgerald, M.Afr., and Rabbi Michael Oppenheimer.

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 supports a tenured professor or associate professor in the Department of Management, Marketing, and Supply Chain in the Boler School of Business. The chair emphasizes quality issues and innovative 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, Nathan Hartman, and Bradley Z. Hull. The current chair is Dr. William Bockanic.

## 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 minor in Catholic studies, and ongoing scholarship on the Catholic intellectual legacy. The current holder of the chair is Dr. Paul V. Murphy, Director, Institute of Catholic Studies.

## 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 contemporary relevance and global dimensions of the Catholic theological tradition-among John Carroll students, 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 contemporary Catholic theology.
2. Supporting curricular development in contemporary Catholic theology.
3. Contributing to the discipline of Catholic systematic theology through research, publication, and professional activities.
4. Collaborating with various campus entities to promote the University mission.
5. Sponsoring campus programs that engage the Catholic theological tradition, its contemporary relevance, and global dimensions.
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

## Coburn Professor of Environmental Science

Named for Dr. Miles Coburn ('75G), an environmentalist and biology professor from 1982 to 2008, the Coburn Professor of Environmental Science enhances the University's commitment to environmental stewardship through the education of biology and environmental science students. Additionally, funds to support environmental research are available to undergraduates. The professorship was established in 2015 through the generosity of Peggy Spaeth (Dr. Coburn's wife), the Coburn family, Ride for Miles, Inc., and other generous donors. The first Coburn Professor of Environmental Science is Dr. James I. Watling.

## The KPMG Professorship in Accountancy

This professorship, 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. It 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. Albert Nagy, Dr. Robert Bloom, and Dr. Gerald Weinstein. The current KPMG professor is Dr. Karen Schuele.

## 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 chair holders have been Dr. Duncan Wu, Dr. Oliver

Plunkett Rafferty, S.J., Dr. David Attwell, Dr. Matthew Pateman, Dr. Derek Cohen, Dr. Thomas Roche, Mr. Robert Smith, fiction writer 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. In 2014, the professorship was occupied by poet Simon Armitage.

## Robert T. Sullens Professorship in Accounting

The Dr. Robert T. Sullens Endowed Professorship 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 through excellence in teaching, research, and service.

## ENDOWED LECTURESHIPS AND SELECTED AWARDS

## 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 are instrumental to the Boler vision and to the promotion and advancement of the Boler Strategic Plan. Faculty selected as Wasmer Fellows are so designated based on a history of consistent performance as contributing citizens through their teaching, research, and service to the Boler School of Business and the University. The Wasmer Fellows program was established in 2008 and is funded through the Wasmer endowment.

## Philanthropic Cifts

Philanthropic gifts provide 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 through interest returns on the University's endowment, and also through restricted and unrestricted philanthropic gifts to JCU. John Carroll University provides over $\$ 59$ million annually in institutional grant and scholarship assistance. Because tuition does not cover the full cost of the John Carroll learning experience, the University relies on the generosity of donors.

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. Generally, restricted gifts are spent on a specific project as they are received.

## Endowment 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 one of the following statements in a new will or in a simple amendment to an existing will.


Dr. Daniel Palmer, Professor of Computer Science
Recipient of the Distinguished Faculty Award for 2017

## Residual Gift Language

A residual bequest comes to the University after a donor's estate expenses and specific bequests are paid:

Igive and devise to John Carroll University (Tax ID \#34-0714681), located in University Heights, OH, all (or state a percentage) of the rest, residue, and remainder of my estate, both real and personal, to be used for its general support (or for the support of a specific fund or program—examples: scholarship, academic program, or other stated purpose).

## Specific Gift Language

Naming John Carroll University as a beneficiary of specific amount from your estate is easy:

Igive and devise to John Carroll University (Tax ID \#34-0714681), located in University Heights, OH, the sum of \$ $\qquad$ (or asset) to be used for its general support (or for the support of a specific fund or program-examples: scholarship, academic program, or other stated purpose).

## Contingent Gift Language

John Carroll University or its affiliates can be named as a contingent beneficiary in your will or personal trust if one or more of your specific bequests cannot be fulfilled:

If (insert name) is not living at the time of my demise, I give and devise to John Carroll University (Tax ID \#34-0714681), located in University Heights, OH, the sum of $\$$ $\qquad$ (or all or a percentage of the residue of my estate) to be used for its general support (or for the support of a specific fund or program-examples: scholarship, academic program, or other stated purpose).

## Customized Language

If you or your attorney would like John Carroll to provide you with customized beneficiary language that is specific to your goal and interest, please contact the Vice President for University Advancement.

It is strongly recommended that wills be drafted and reviewed by an attorney. The Office of University Advancement can provide more details on gift opportunities.

## 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 2008 have been:

| $\mathbf{2 0 0 8}$ | Dr. George Bilgere | $\mathbf{2 0 1 3}$ | Dr. Anne Kugler |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | Dr. Phyllis Braudy Harris | $\mathbf{2 0 1 4}$ | Dr. Jacqueline J. Schmidt |
| $\mathbf{2 0 1 0}$ | Dr. Elizabeth v. Swenson | $\mathbf{2 0 1 5}$ | Dr. Susan Orpett Long |
| $\mathbf{2 0 1 1}$ | Dr. John S. McBratney | $\mathbf{2 0 1 6}$ | Dr. Jeffrey Johansen |
| $\mathbf{2 0 1 2}$ | Dr. Brenda Wirkus | $\mathbf{2 0 1 7}$ | Dr. Daniel W. Palmer |

## 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. Culicchia awardees since 2008 have been:

| 2008 | Dr. Chris Roark | $\mathbf{2 0 1 3}$ | Dr. Mindy Peden |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | Dr. Maryclaire Moroney | $\mathbf{2 0 1 4}$ | Dr. Carl Anthony |
| $\mathbf{2 0 1 0}$ | Dr. K. Julia Karolle-Berg | $\mathbf{2 0 1 5}$ | Dr. Paul Nietupski |
| $\mathbf{2 0 1 1}$ | Dr. Michael A. Nichols | $\mathbf{2 0 1 6}$ | Dr. Debra Rosenthal |
| $\mathbf{2 0 1 2}$ | Dr. Philip J. Metres, III | $\mathbf{2 0 1 7}$ | Dr. Yuh-Cherng Chai |

## 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. Recipients since 2008 have been:

| 2008 | Dr. Andrew M. Welki | $\mathbf{2 0 1 3}$ | Dr. Scott Allen |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | Dr. Lindsay N. Calkins | $\mathbf{2 0 1 4}$ | Dr. Thomas Zlatoper |
| $\mathbf{2 0 1 0}$ | Dr. Paul Murphy, Jr. | $\mathbf{2 0 1 5}$ | Dr. Rosanna F. Miguel |
| $\mathbf{2 0 1 1}$ | Dr. Frank J. Navratil | $\mathbf{2 0 1 6}$ | Dr. Albert L. Nagy |
| $\mathbf{2 0 1 2}$ | 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 for 2016-17 and 2017-18 are:

2016-2017

| Dr. Carl Anthony | Dr. John McBratney |
| :--- | :--- |
| Dr. Chrystal Bruce | Dr. Mariana Ortega |
| Dr. Gwen Compton-Engle | Dr. Andreas Sobisch |
| Dr. Nathan Gehlert | Dr. Earl Spurgin |
| Dr. Gerald Guest | Dr. Colin Swearingen |
| Dr. Edward Hahnenberg | Dr. Gerald Weinstein |
| Dr. Paul Lauritzen |  |

2017-2018

Dr. Jean Feerick
Dr. Daniel Kilbride
Dr. Peter Kvidera
Dr. Sokchea Lim
Dr. James Lissemore

Dr. John Rausch
Dr. Christopher Sheil
Dr. Dianna Taylor
Dr. Wendy Wiedenhoft-Murphy

## 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. Recipients since 2008 have been:

| $\mathbf{2 0 0 8}$ | Dr. Jeanne Colleran | $\mathbf{2 0 1 3}$ | Dr. Linda Seiter |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | Dr. Ruth Fenske | $\mathbf{2 0 1 4}$ | Dr. Tracy Masterson |
| $\mathbf{2 0 1 0}$ | Dr. Paul Britton | $\mathbf{2 0 1 5}$ | Dr. Erin Johnson |
| $\mathbf{2 0 1 1}$ | Dr. Brent Brossmann | $\mathbf{2 0 1 6}$ | Dr. Phyllis Braudy Harris |
| $\mathbf{2 0 1 2}$ | Dr. Gloria Vaquera | $\mathbf{2 0 1 7}$ | Dr. Thomas Bonda |

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Mary Rycyna, M.A., Senior Director, Major Gifts

April Skurka, M.Arch., Project Manager, Facilities

Christina Sobh, M.B.A., Associate Director, Enrollment

Maria Soriano, M.A., Director, Writing Center

James E. Spitznagel, B.S., Data Security Engineer
Lori L. Sprague, M.B.A., Assistant Director, Human Resources

John R. Stankiewicz, B.S., Senior Systems Engineer
Ilana Stanton-Ben-Zvi, B.A., Assistant Director, Enrollment
Sarah Starr Zechman, M.L.I.S., Assistant Director, Advancement Services
Lisa Sugar, M.Ed., Coordinator, Department Placement, Education and School Psychology
John Sully, B.S., Director, Enterprise Applications, Information Technology
Kendra Svilar, J.D., Title IX Coordinator
Kelly Swan, B.A., Communications Director, ISI

Mitch Tabol, Director, Physical Plant
Jay Tarby, Ph.D., Faculty Liaison, Center for Digital Media

Meredith Tayek, B.S., Assistant Director/ Creative Service Marketing

Scott Taylor, B.A., Senior Graphic Designer
Alex Teodosio, M.B.A., M.P.A., SPHR, Assistant Vice President, Human Resources

Marilyn Thomas, Client Systems Specialist
Kristopher Tibbs, M.B.A., Assistant Dean, Graduate Business Programs, Boler School of Business

Martin Untch, AAB, Client Systems Specialist
Lauren Urban, M.Ed., Financial Aid
Matthew J. Verleny, B.A., Manager, Endowment and Grant Accounts
Logan Vess, Ph.D., Assistant Director for Academic Internships
David Vitatoe, M.Ed., M.B.A., Executive Director, Alumni Relations
Brandon Walker, Library Technologies and Systems Coordinator

Michelle Walker, B.A., Senior Assistant Registrar
Claudia Wenzel, B.A., Director, Financial Assistance

Catherine Wheeler, M.S., Laboratory Coordinator, Department of Biology

Faith A. Whitworth, M.A.T., Laboratory Coordinator, Department of Chemistry

William B. Wilhelm, Unified Communications Engineer

Kristen L. Willis, I.I.D.A., Project Manager, Facilities

Jeffrey A. Your, C.S.M.M., M.B.A., Manager, Scientific Stores and Laboratory Support Services

## Athletic Administration and Coaching Staff

Jacob Alexander, Associate Track \& Cross Country
Nicholas Alexander, B.A., Assistant Football Coach

Kyle A. Basista, B.A., Head Coach, Men's/ Women's Cross Country and Track
Michele Benoit, M.S., Head Volleyball Coach
Rachel Dell Gondek, M.S.Ed., Head Coach, Women's Lacrosse

Courtney Farver, M.Ed., Director, Recreation and Intramurals

Mark Fino, B.A., Head Coach, Swimming and Diving

Richard F. Finotti, Head Coach, Football
Ryan Goughnour, Assistant Athletic Trainer
Mark F. Hawald, M.B.A., Head Coach, Wrestling
Kyle Hoke, B.A., Defensive Coordinator, Football

Jeffrey Long, B.A., Assistant Athletic Coach
Nicole Loudin, B.S., Head Coach, Softball
Michael E. Marich, B.S., Head Coach, Women's Soccer

Hector Marinaro, Head Coach, Men's Soccer Laurie J. Massa, M.Ed., Senior Director of Athletics

Donald J. McPhillips, M.S., A.T.C./L., Head Athletic Trainer

Michael J. Moran, B.S.B.A., Head Coach, Men's Basketball/Golf

Kelly Morrone, B.S., Head Coach, Women's Basketball

Michael Perrino, Assistant Coach, Men's Lacrosse

Joseph Rautenstrauch, M.S., Head Coach, Men's Lacrosse

Timothy Robertson, M.S., Strength/ Conditioning Coach
Sherrie Session, B.A., Assistant Coach, Women's Basketball

Paul T. Spicuzza, Assistant Athletic Trainer
Michael Switzer, Football Offensive Coordinator

Marc N. Thibeault, B.S., Head Coach, Baseball

Brittany Urbania, Assistant Athletic Trainer
Christopher Wenzler, B.A., Assistant Director for Athletic Communication

Michael Wojcik, B.S., Facility and Equipment Manager


## COMMITTEES*

Principal University Committees<br>University Committee on Collaborative Governance<br>University Strategic Planning Group<br>University Committee on the Student Learning Experience<br>University Committee for Resource Allocation and Prioritization<br>University Committee on Administrative Policies and Programs<br>University Committee on Educational Policy

## Other University Committees

Athletic Committee
Committee of Academic Deans
Committee on Graduate Studies
Committee on Research and Service Committee on Teacher Education Committee on Retirement and Allowances

Committee on Scheduling
Committee on Teacher Education Diversity, Equity and Inclusion Committee
Faculty Board of Review Pool Faculty Grievance Committee Pool Faculty Handbook Committee Health Professions Advisory Committee Information Technology Steering Committee

Institutional Animal Care and Use Committee
Institutional Assessment Committee
Institutional Review Board
Mission Integration Committee
University Committee on Resource Allocation

University Committee on Student Experience
University Hearing Board
University Integrative Core Committee
University Library Committee
University Strategic Planning Group
University Strategic Planning Group: Goal One
Web Management Committee

Faculty Council Committees

Committee on Academic Policies Committee on Elections 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 faculty appointment and retirement.)

DAVID G. ANDERSON (1987-2017
Associate Professor Emeritus of Spanish Ph.D., Vanderbilt University
*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

DEAN N. BIRCH (1991-2016)
Assistant Professor of Political Science
Ph.D., University of California-Santa Barbara
*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
LeROY D. BROOKS (2001-2013)
Professor of Finance; Mellen Chair in Finance
Ph.D., Michigan State 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
CASIMIR R. BUKALA, S.J. (1970-2015)
Professor Emeritus of Philosophy
Ph.D., Boston College
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

JOHN T. DAY (2008-2016)
Professor of English; Emeritus
Provost and Academic Vice President
Ph.D., Harvard University

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

DORIS K. DONNELLY (1989-2014)
Professor Emeritus of Theology and Religious Studies Ph.D., Claremont Graduate School
*GORMAN L. DUFFETT
(1992-2004)
Director Emeritus, Grasselli Library Ph.D., University of Pittsburgh

DUANE A. DUKES (1977-2016)
Professor of Sociology and Criminology
Ph.D., Kent State University

PATRICK L. EAGAN (1978-98)
Associate Professor of Political Science
Ph.D., University of CaliforniaRiverside

THOMAS R. EVANS (1970-2015)
Professor of Psychology Ph.D., University of Texas

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

[^5]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 Ph.D., The Catholic University of America

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 of America

THOMAS L. HAYES (1969-2014)
Assistant Professor of English
M.A., John Carroll University
*FRANK J. HEINTZ, Jr. (1956-90) Professor of Political Science Ph.D., The Catholic University of America

RICHARD HENDRICKSON (2001-13)
Associate Professor of Communication Ph.D., Bowling Green State University

DAVID HELSEL (1994-2008)
Assistant Professor of Education
Ph.D., The University of Akron

AMY R. HOFFMAN (1976-1981)
Professor Emerita of Education Ed.D., Ball State University
*DARRELL J. HORWATH (1970-2007)
Assistant Professor Emeritus of Mathematics
M.S., University of WisconsinMadison
*MARY K. HOWARD (1963-98)
Professor Emerita of History
Ph.D., University of Pennsylvania
*DOMINIC J. HUNT (1957-86)
Professor Emeritus of Chemistry Ph.D., Saint Louis University

FRANK L. JENKINS (1964-94)
Assistant Professor of Mathematics M.S., University of Illinois

GERALD W. JORGENSON
(1977-2004)
Associate Professor Emeritus of Education
Ed.D., Columbia University
*PATRICIA A. KEARNEY (1967-99)
Professor Emerita of Education
Ph.D., Western Reserve University

[^6]JOSEPH F. KELLY (1972-2016)
Professor Emeritus of Theology and Religious Studies
Ph.D., Fordham University

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)
Associate Professor Emeritus of Sociology
Ph.D., Case Western Reserve University

KATHLEEN S. KOBYLJANEC (2002-2013)
Associate Librarian, Grasselli Library J.D., Cleveland State University

ROBERT KOLESAR (1989-2014)
Associate Professor of History Ph.D., Clark University

WALLACE J. KOSINSKI (1966-94)
Associate Professor of History
Ph.D., Case Western Reserve University

WILLIAM L. LANGENFUS (1990-2015)
Associate Professor of Philosophy Ph.D., University of WisconsinMadison

JANET LARSEN (1984-2010)
Professor Emerita of Psychology Ph.D., Case Western Reserve University

RAYMOND A. LeGRAND
(1966-90)
Professor Emeritus of Education Ed.D., Western Reserve University
*FRANK P. LIHVAR, S.J.
(1970-2000)
Assistant Professor Emeritus of Classical Languages
Ph.D., University of Chicago

LEONE J. MARINELLO (1949-85)
Associate Professor of Communication
A.M., Northwestern University

DAVID R. MASON (1972-2012)
Professor Emeritus of Theology and Religious Studies
Ph.D., University of Chicago
*E. BRUCE McLEAN (1970-96)
Professor Emeritus of Biology
Ph.D., The Ohio State University

JOHN F. MICHAEL (1956-84)
Professor Emeritus of Management
Ph.D., The Ohio State University
*CLEMENT A. MILLER (1967-79)
Professor of Fine Arts
Ph.D., University of Michigan

JOSEPH B. MILLER (1961-2014)
Professor of Communication
Ph.D., Case Western Reserve University

MARCELLA D. MILOTA (1975-2013)
Senior Librarian Emerita, Grasselli Library
M.S.L.S., Case Western Reserve University

CARL J. MONASTRA (1970-99)
Associate Professor of Accounting M.B.A., Case Western Reserve University
*FENTON D. MOORE (1972-2004)
Professor of Biology
Ph.D., Case Western Reserve
University

[^7]JERRY L. MORENO (1968-2008)
Assistant Professor Emeritus of Mathematics M.S., Michigan State University

MARIAN J. MORTON (1972-2007)
Professor Emerita of History Ph.D., Case Western Reserve University
*WILLIAM R. MOTISKA (1950-74)
Professor of Accounting M.S., Kent State University; CPA (Ohio)

HARRY C. NASH (1951-2001)
Professor Emeritus of Physics
Ph.D., Case Institute of Technology
THOMAS R. NEVIN (1980-2014)
Professor Emeritus of Classical Studies
Ph.D., University of WisconsinMadison
*ARTHUR J. NOETZEL (1941-86)
Professor Emeritus of Business Administration
Ph.D., University of Michigan;
Litt.D., John Carroll University
ROBERT J. NOOK (1951-90)
Associate Professor of Chemistry M.S., John Carroll University
*WALTER S. NOSAL (1949-88)
Professor Emeritus of Education
Ed.D., George Washington University

JOAN M. NUTH (1987-2015)
Associate Professor Emerita of Theology and Religious Studies Ph.D., Boston College
*WILLIAM F. O'HEARN (1956-96)
Professor of Physics
Ph.D., Purdue University

DWIGHT M. OLSON (1984-2007)
Professor Emeritus of Mathematics Ph.D., University of Wyoming
*JOSEPH P. OWENS, S.J. (1953-87)
Professor Emeritus of Education Ph.D., Fordham University

VINCENT M. PANICHI (1960-96)
Professor Emeritus of Accounting
M.B.A., Western Reserve University
*MICHAEL S. PAP (1958-88)
Professor of History
Ph.D., Heidelberg University (Germany)

KENNETH L. PARKHURST (1966-87)
Professor Emeritus of Economics Ph.D., University of Southern California

LOUIS G. PECEK (1959-96)
Professor of English; Assistant
Academic Vice President
Ph.D., The Ohio State University

ANTONIO PÉREZ-ROMERO (1992-2014)
Associate Professor Emeritus of Spanish
Ph.D., University of Toronto

JAMES E. PIERCY (1969-73; 77-87)
Professor of Management
Ph.D., Case Western Reserve University
*JOHN S. PIETY (1980-04)
Associate Librarian Emeritus;
Director, Grasselli Library
M.L.S., University of Oklahoma

DONALD M. PODUSKA
(1960-2005)
Professor Emeritus of Classical Languages
Ph.D., The Ohio State University

GARY E. PORTER (2000-2013)
Associate Professor of Finance Ph.D., University of South Carolina
*ALAN POST (1971-88)
Professor Emeritus of Management Ph.D., Case Western Reserve University
*RONALD L. PRATT (1962-95)
Professor of Philosophy
Ph.D., The Catholic University of America
*GEORGE L. PRPIC (1958-89)
Professor Emeritus of History Ph.D., Georgetown University

DAVID W. RAINEY (1984-2016)
Professor Emeritus of Psychology Ph.D., The Ohio State University
*DOROTHY P. RICHARD
(1962-86)
Assistant Professor of English M.A., John Carroll University

DAVID W. ROBSON (1984-2013)
Professor Emeritus of History Ph.D., Yale University

FRANCIS D. RYAN (1965-93)
Professor of Mathematics Ph.D., Purdue University
*W. FRANCIS RYAN (1983-2008)
Associate Professor of History; Director, Institute of Humanities Ph.D., University of Connecticut

HÉLÈNE N. SANKO (1963-2016)
Professor Emerita of French Ph.D., Case Western Reserve University
*JOSEPH O. SCHELL, S.J. (1946-84)
Professor Emeritus of Philosophy;
President of the University, 1967-70
A.M., Loyola University of Chicago;

LL.D., John Carroll University

ALFRED SCHNEIDER (1967-97)
Professor of Marketing
Ph.D., New York University

DAVID C. SCHIRM (1984-2011)
Professor Emeritus of Finance Ph.D., Pennsylvania State University

THOMAS SCHUBECK, S.J. (1989-2014)
Professor Emeritus of Theology and Religious Studies
Ph.D., University of Southern California

LARRY M. SCHWAB (1976-2011)
Professor of Political Science
Ph.D., Case Western Reserve University

GERALD J. SCHWEICKERT
(1961-2002)
Associate Professor Emeritus of Physical Educ. \& Exercise Science Ph.D., The University of Akron
*EDWIN J. SKOCH (1968-2003)
Professor Emeritus of Biology
Ph.D., The Ohio State University
*FRANCIS J. SMITH, S.J. (1963-90)
Professor Emeritus of English
M.A., Oxford University

JONATHAN E. SMITH (1985-2016)
Professor Emeritus of Management Ph.D., University of Georgia

JEANNE SOMERS (2005-2012)
Director, Grasselli Library
Ph.D., Kent State University
*JOHN C. SOPER (1982-2013)
Professor Emeritus of Economics
Ph.D., University of Massachusetts

JOHN R. SPENCER (1977-2014)
Professor Emeritus of Theology and Religious Studies
Ph.D., University of Chicago
*ERNEST G. SPITTLER, S.J.
(1965-93)
Associate Professor of Chemistry Ph.D., The Catholic University of America

CARL R. SPITZNAGEL (1972-2014)
Professor Emeritus of Mathematics Ph.D., University of Kentucky

DAVID L. STENSON (1972-2014)
Associate Professor of Mathematics
Ph.D., University of Massachusetts

ALAN R. STEPHENSON (1985-2016)
Professor of Communication
Ph.D., The Ohio State University

HEIDI I. STULL (1970-94)
Professor Emerita of German
Ph.D., Kent State University

DONALD H. STUPICA
(1967-2006)
Instructor in Physical Education and
Exercise Science
M.A., John Carroll University
*ROBERT T. SULLENS (1963-88)
Professor Emeritus of Accounting
D.B.A., Kent State University

JOHN G. SWEENEY (1958-91)
Assistant Professor of Economics M.A., M.Phil., Columbia University
*ROBERT D. SWEENEY
(1964-2001)
Professor Emeritus and Shula Professor Emeritus of Philosophy Ph.D., Fordham University
*MARY K. SWEENY (1976-94)
Coordinator of Reference M.S.L.S., Case Western Reserve University

NANCY P. TAYLOR (2000-2017)
Assistant Professor of Education Ph.D., Kent State University
*ARTHER S. TRACE (1956-91) Professor Emeritus of English Ph.D., Stanford University

FREDERICK F. TRAVIS
(1988-2006)
Professor Emeritus of History and Provost Emeritus Ph.D., Emory University

MARK D. TRELEVEN (1989-2016) Associate Professor of Management Ph.D., University of North Carolina at Chapel Hill

JOSEPH TRIVISONNO, Jr. (1957-2000)
Professor Emeritus of Physics
Ph.D., Case Institute of Technology
*WILLIAM J. ULRICH (1959-89)
Professor of History
Ph.D., The Ohio State University

JAMES A. WALSH (1963-99)
Professor of Chemistry
Ph.D., Purdue University

EDWARD J. WALTER (1946-83)
Professor Emeritus of Mathematics
Ph.D., St. Louis University

MARY H. WARD (1966-87)
Professor Emerita of Education
Ph.D., Western Reserve University

WILLIAM M. WEAVER
(1958-2001)
Professor Emeritus of Chemistry Ph.D., Purdue University

ROGER A. WELCHANS (1965-95)
Professor Emeritus of Art History
Ph.D., Case Western Reserve
University

SALLY H. WERTHEIM (1971-2008)
Dean Emerita and Professor Emerita of Education
Ph.D., Case Western Reserve University

ANDREW M. WHITE (1970-2003)
Professor Emeritus of Biology Ph.D., The Ohio State University

BRENDA A. WIRKUS (1983-2017)
Professor Emerita of Philosophy
Ph.D., University of Ottawa
*PAUL A. WOELFL, S.J. (1959-83)
Professor of Political Science
Ph.D., Saint Louis University

CHARLES E. WOOD (1976-2010)
Senior Librarian Emeritus
M.S.L.S., Case Western Reserve

University
*Deceased


## CURRENT FACULTY

## RYAN ALLEN

Associate Professor of Education B.A., Marshall University; M.Ed., The Citadel; Ph.D., Ball State University Assistant Professor, 2008-2013;
Associate Professor, 2013-

## SCOTT J. ALLEN

Associate Professor of Management
B.S., University of Minnesota; M.Ed., Xavier University; Ph.D., Antioch University
Visiting Assistant Professor, 2006-
09; Assistant Professor, 2009-2014;
Associate Professor, 2014-

## CARL D. ANTHONY

Professor of Biology
B.A., North Central College; M.S., University of Texas at Arlington; Ph.D., University of Southwestern Louisiana

Visiting Assistant Professor, 199697; Assistant Professor, 1997-2003; Associate Professor, 2003-2015; Professor, 2015-

## STACY L. ASTROVE

Assistant Professor of Management B.S. Purdue University; Ph.D., University of Iowa Assistant Professor, 2017-

## MEDORA BARNES

Associate Professor of Sociology; Director, Gender, Sexuality and Women's Studies
B.A., Trinity College; M.A., Ph.D., University of Connecticut Instructor, 2009; Assistant Professor, 2009-15; Associate Professor, 2015-; Director, 2016-

MARY BEADLE
Professor of Communication
B.M., Mary Manse College; M.A., Ph.D., Kent State University Visiting Instructor, 1997-81; Associate
Professor, 1994-2001; Dean, 2001-07;
Professor, 2001-; Chair, 2011-16

DENISE D. BEN-PORATH
Professor of Psychology
B.A., The Ohio State University; M.A., Ph.D., Kent State University Assistant Professor, 2000-2006;
Associate Professor, 2006-2014;
Professor, 2014-

MATTHEW P. BERG
Professor and Chair, Department of History
B.A., University of California-Los

Angeles; M.A., Ph.D., University of
Chicago
Assistant Professor, 1994-2000;
Associate Professor, 2000-2008;
Professor, 2008-; Chair, 2017-

GEORGE B. BILGERE
Professor of English
B.A., University of California-

Riverside; M.A., Washington
University; Ph.D., University of Denver
Assistant Professor, 1991-97;
Associate Professor, 1997-2016;
Professor, 2016-

## ROBERT BLOOM

Professor of Accountancy
B.A., Queens College; M.B.A.,

Columbia University; Ph.D., New York
University
Professor, 1986-

WILLIAM N. BOCKANIC
Professor of Management; Standard Products Reid Chair
B.A., John Carroll University; J.D., Cleveland State University Assistant Professor, 1978-86; Associate Professor, 1986-96; Chair, 1986-94; Professor, 1996-; Chair, 2015-

## CECILE BRENNAN

Associate Professor of Counseling; Chair, Department of Counseling B.A., M.A., M.Ed., Ph.D., Cleveland State University Assistant Professor, 2009-14; Associate Professor, 2014-; Chair, 2014-

## PAULA J. BRITTON

Professor of Counseling
B.S.W., Valparaiso University; M.A., Ph.D., The University of Akron Assistant Professor, 1993-98; Associate Professor, 1998-2003; Professor, 2003-

## SEBASTIAN BROCKHAUS

Assistant Professor of Supply Chain Management
Diplom Kaufmann, University of Hamburg; Doctor Rerum Politicarum, Hamburg University of Technology (TUHH)
Assistant Professor, 2017-

## BRENT G. BROSSMANN

Associate Professor of Communication B.A., Texas A\&M University; M.A., California State University-Fullerton; Ph.D., University of Kansas
Instructor, 1993-95; Assistant Professor, 1995-99; Associate Professor, 1999-

CHRYSTAL D. BRUCE
Associate Professor of Chemistry B.S., University of Tennessee at Chattanooga; Ph.D., University of North Carolina
Associate Professor, 2012-

DOUGLAS R. BRUCE
Associate Professor of Communication B.A., University of Texas at San Antonio; M.A., Southwest Texas State University; Ph.D., University of Iowa Visiting Assistant Professor, 198587; Assistant Professor, 1987-92; Associate Professor, 1992-

## CARRIE BUCHANAN

Assistant Professor of Communication B.A., Bryn Mawr College; M.A., Ph.D., Carleton University Instructor, 2009-2010; Assistant Professor, 2010-

EMILY E. BUTLER
Associate Professor of English
A. B., University of Chicago; M.A., Ph.D., University of Toronto Visiting Assistant Professor, 2010-12; Assistant Professor, 2012-17; Associate Professor, 2017-

## LINDSAY NOBLE CALKINS

Associate Professor of Economics B.A., Wellesley College; Ph.D., University of Michigan Assistant Professor, 1986-92; Associate Professor, 1992-; Associate Dean, 2010-17

## SANTA CASCIANI

Professor of Italian; Director, Bishop Anthony M. Pilla Program in Italian American Studies
B.A., Saint John Fisher College; M.A., The Ohio State University; Ph.D., University of Wisconsin-Madison Assistant Professor, 1999-2003; Director, 1999-; Associate Professor, 2003-2016; Professor, 2016-

YUH-CHERNG CHAI
Associate Professor of Chemistry B.S., Ph.D., Iowa State University

Visiting Assistant Professor, 2002-
03; Assistant Professor, 2003-09;
Associate Professor, 2009-

PAUL R. CHALLEN
Professor of Chemistry
B.A., Oxford University;

Ph.D., University of Michigan
Assistant Professor, 1990-96;
Associate Professor, 1996-2006; Chair, 2001-05; Professor, 2006-

## PATRICK B. CHEN

Associate Professor of Mathematics
B.S., University of Chung Yuan
(Taiwan); M.S., John Carroll
University; Ph.D., Case Western
Reserve University
Visiting Assistant Professor, 1984-88;
Assistant Professor, 1988-91; Associate Professor, 1991-

## MINA CHERCOURT

Associate Librarian
B.A., The Ohio State University;
M.S.S.A., Case Western Reserve

University; M.L.I.S., Kent State
University
Assistant Librarian, 2008-2014;
Associate Librarian, 2014-
LAWRENCE R. CIMA
Associate Professor of Economics
B.S., Canisius College; Ph.D., West

Virginia University
Assistant Professor, 1971-79; Visiting
Assistant Professor, 1980-83; Assistant
Professor, 1983-87; Associate
Professor, 1987-; Chair, 1989-94

RICHARD D. CLARK
Associate Professor of Sociology and Chair, Department of Sociology and Criminology
B.A., State University of New York at Fredonia; M.A., Ph.D., State University of New York at Albany
Assistant Professor, 1995-2001;
Associate Professor, 2001-; Chair, 2017-

JEANNE M. COLLERAN
Interim President; Professor of English
B.A., John Carroll University; M.A., Case Western Reserve University; Ph.D., The Ohio State University Visiting Instructor, 1987-88;
Assistant Professor, 1988-94;
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Instructor, 1962-65; Assistant
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B.A., Loras College; M.A., Marquette

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DAVID M. La GUARDIA
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B.A., M.A., John Carroll University;

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Instructor, 1968-79; Assistant
Professor, 1979-83; Associate
Professor, 1983-88; Chair, 1986-96;
Professor, 1988-;
Director, 1995-96; Assistant Academic
Vice President, 1996-98; Associate
Academic Vice President, 1998-2001;
Acting Chair, Department of Art History and Humanities, 2000-2001; Interim Academic Vice President, 200102; Academic Vice President, 2002-08

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Chair, 1999-2003; Director, 1999-2010

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Assistant Professor, 2009-2016;
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89; Assistant Professor, 1989-94;
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Assistant Professor, 1988-94;
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Instructor, 1970-81; Assistant
Professor, 1981-97; Chair, Department
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B.A., University of Pennsylvania; M.A., Ph.D., Princeton University Assistant Professor, 1998-2004; Associate Professor, 2004-2016; Professor, 2016-; Chair, 2016-

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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-

## RALPH A. SAPORITO

Associate Professor of Biology
B.S., Ph.D., Florida International University
Assistant Professor, 2010-15; Associate Professor, 2015-

## NICHOLAS R. SANTILLI

Interim Provost and Academic Vice President; Professor of Psychology B.A., M.Ed., University of Toledo; Ph.D., The Catholic University of America
Visiting Assistant Professor, 1989-92; Assistant Professor, 1992-98; Chair, 1995-2003; Associate Professor, 19982012; Director, 2004-07; Associate Academic Vice President, 2007-11; Professor, 2015-; Associate Provost, 2015-17; Interim Provost and Academic Vice President, 2017-

## ZEKI SARITOPRAK

Bediüzzaman Said Nursi Chair in Islamic Studies; 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, 2007-2014; Professor, 2014-

## BRIAN SAXTON

Assistant Professor of Management B.A., B.S.B.A., Bowling Green State University; M.B.A., Cleveland State University; Ph.D., The Ohio State University
Visiting Assistant Professor, 20152016; Assistant Professor, 2016-

JACQUELINE J. SCHMIDT
Professor of Communication; 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, 2011-2016; Director, 2016-

## KAREN SCHUELE

Professor of Accountancy B.S., Case Western Reserve University; M.P.A., University of Texas; Ph.D., Kent State University; CPA (Ohio)
Visiting Instructor, 1984-86; 8991; Assistant Professor, 1991-2000;
Associate Professor, 2000-2010;
Interim Associate Dean, 2005-07;
Acting Dean, 2007; Dean, 2007-2015;
Professor, 2010-

LINDA M. SEITER
Professor of Computer Science
B.S., M.S. Ph.D., Northeastern

University
Assistant Professor, 2003-09;
Associate Professor, 2009-15;
Professor, 2015-

## MICHAEL P. SETTER

Assistant Professor of Chemistry
B.S., Rose-Hulman Institute of

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Visiting Assistant Professor, 19992000; Assistant Professor, 2000-; Chair, 2010-17

## YI SHANG

Associate Professor of Education B.A., Beijing (Peking) University; M.A., Boston University; M.A., Ph.D., Boston College
Instructor, 2009-2010; Assistant Professor, 2010-15; Associate Professor, 2015-

MARK D. SHELDON
Assistant Professor of Accountancy
B.S., M.Acc., Miami University; Ph.D., Virginia Tech
Assistant Professor, 2016-
CHRISTOPHER A. SHEIL
Professor of Biology
B.Sc., Ph.D., University of Kansas

Assistant Professor, 2003-2008;
Associate Professor, 2008-2014;
Professor, 2014-
PAUL L. SHICK
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-

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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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Associate Dean, Boler School of Business; Professor of Economics B.S., Oakwood College; M.S., Ph.D., Wayne State University Visiting Assistant Professor, 199598; Assistant Professor, 1998-2004; Associate Professor, 2004-; Chair, 2006-2015; Professor, 2009-; Associate Dean, 2016-

ANDREAS SOBISCH
Associate Professor of Political Science
B.S., Georgia College; M.A., Ph.D., Emory University Assistant Professor, 1990-98;
Associate Professor, 1998-; Director, 2005-2015

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Professor of Philosophy
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, 2005-07; Professor, 2006-; Director, 2007-10; 2010-2015

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B.A., University of North Carolina at

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State University; Ph.D., Emory University
Instructor, 2001-02; Assistant
Professor, 2002-07; Associate
Professor, 2007-; Director, 2008-15

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Associate Professor of Education and Co-Chair, Department of Education and School Psychology
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, 2008-15; Co-Chair, 2017-

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Assistant Professor of Political Science B.A., Grove City College; M.A., Ph.D., University of Oklahoma Assistant Professor, 2012-

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B.S., Tufts University; M.A., Ph.D., Case Western Reserve University; J.D., Cleveland State University Assistant Professor, 1976-79; Chair, 1978-86; Associate Professor, 1980-85; Professor, 1985-; Dean, Student Career Development, 1989-96

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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- 2014; Professor, 2014-; Interim Chair, 200709; Chair, 2009-16; Shula Chair, 201215

## MEGAN L. THORNTON

Associate Professor of Spanish B.A., Ph.D., University of Kansas; M.A., University of New Mexico Assistant Professor, 2010-17; Associate Professor, 2017-

## PEIFANG TIAN

Associate Professor of Physics B.S., M.S., Tsinghua University (China); Ph.D., Princeton University Assistant Professor, 2009-15;
Associate Professor, 2015-

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Assistant Professor of Exercise Science
B.S., M.B.A., Wheeling Jesuit

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University
Assistant Professor, 2017-

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A.B., Washington University in St. Louis; Ph.D., University of CaliforniaBerkeley
Assistant Professor, 2013-

GLORIA VAQUERA
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Assistant Professor, 2004-10;
Associate Professor, 2010-

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M.L.S., University of Illinois, Urbana-

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Chicago
Assistant Librarian, 2013-

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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-

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Assistant Professor, 2015-; Chair, 2015-

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## WILLIAM J. WEAVER

Visiting Instructor in Communication
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MACTM, Cleveland State University
Visiting Instructor, 2016-

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Associate Professor of Accountancy B.S.B.A., M.Acc., University of

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Assistant Professor, 2009-17;
Associate Professor, 2017-

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Visiting Instructor, 1981-83;
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Associate Professor, 1999-2008;
Professor, 2008-; Chair, 2002-14

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Assistant Professor, 1982-2006;
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Associate Professor, 2006-; Interim
Assistant Dean, 2006-07; Chair, 2015-

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Assistant Professor of Marketing B.S., Hubei University (China); M.S., Ph.D., Louisiana State University Assistant Professor, 2014-

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Associate Professor of Psychology
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Assistant Professor, 1995-2001;
Associate Professor, 2001-

## SHERI D. YOUNG

Assistant Professor and Chair, Department of Psychology
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M.A., Ph.D., Case Western Reserve

University
Assistant Professor, 1995-; Chair, 2010-

## FENG ZHAN

Assistant Professor of Finance B.Sc., B.A., M.A., University of Manitoba; Ph.D., York University
Assistant Professor, 2014-

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Associate Librarian
B.A., Chongqing University (China);
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Assistant Librarian, 1998-2004;
Associate Librarian, 2004-

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Associate Professor of Political Science
B.A., University of Michigan; M.A., Ph.D., University of WisconsinMadison

Assistant Professor, 2008-2014;
Associate Professor, 2014-

## 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, 2001-02; Professor, 1997-; Dean, Graduate School, 19992001; Interim Dean, Boler School of Business, 2005-06


## POST-DOCTORAL FELLOWS

KENNETH S. CHAPLIN
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B.A., M.Ed., Florida Atlantic

University; Ph.D., Texas A\&M
University
Postdoctoral Fellow, 2016-

## NATHALIE NYA

Department of Philosophy
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Santa Cruz; Ph.D., Pennsylvania State
University
Postdoctoral Fellow, 2016-

## IN MEMORIAM

WILLIAM M. BICHL, S.J.
Assistant Professor of Philosophy
B.A., M.A., Loyola University of Chicago; M.A., Xavier University; Ph.L., Saint Louis University; S.T.L., Bellarmine School of Theology Instructor, 1963-64, 70-71; Assistant Professor, 1971-2015; Acting Assistant Dean, 1982-84; Assistant Dean, 19842006; Director, Freshman-Sophomore Advising, 1996-2006
L. K. "KAL" TUOMINEN

Department of Biology
B.A., Macalester College; M.S., University of Massachusetts, Amherst; Ph.D., University of Georgia
Postdoctoral Fellow, 2017-


William M. Bichl, S.J.
(1931-2015)

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(Rev.) PHILIP J. BERNIER, O.F.M. Cap.
Adjunct Instructor in Theology and
Religious Studies
M.Div., The Catholic University of America

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Ph.D., University of Notre Dame
(Rev.) DAMIAN FERENCE
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Adjunct Instructor in Chemistry M.A.T., Kent State University

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KATHLEEN AHEARN, Ph.D. English
GERALD ANDERSON, Ph.D.
Economics and Finance
LAURA ANFANG, M.A.
Education and School Psychology
GAIL ARNOFF, M.A.
English
LINDA ATHERTON, B.A.
Fine Arts
ANTHONY AVENI, M.B.A./CFA
Economics and Finance
THOMAS BABB, M.A.
Accountancy
CARLOS BARRIUSO, Ph.D.
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MARY BECKER, Ph.D.
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VINCENT BENANDER, M.S.
Mathematics and Computer Science
PENELOPE BENCHEK, Ph.D.
Mathematics and Computer Science
MARK BERARDI, M.A.
Philosophy
SARAH BOLTON, M.S.
Biology
MICHAEL BOWEN, Ph.D.
History
ALAN BRAUN, M.A.
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ZACHARY BRENNER, M.B.A.
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Chain
CHARLES BRITTEN, M.B.A./CPA
Accountancy
YVONNE BRUCE, Ph.D.
English
DAVID BUHROW, M.A.
Theology and Religious Studies
JOHN BURKE, Ph.D.
Economics and Finance
AARON BURKLE, M.S.
History
SHAWN BURTON, M.S. Ed/ABD
Counseling

RICHARD BUSBY, M.B.A. Management, Marketing, and Supply Chain
PAUL CANIS, Ph.D. Philosophy
FRANK CAPPELLO, B.S.B.A./CPA
Accountancy
CLAUDIA CAPUANO, M.A.
Classical and Modern Languages
IAN CARLSTROM, Ph.D.
Philosophy
JOAN CARNEY, M.A.
Theology and Religious Studies
JAMES CARR, M.A.
Fine Arts
DAVID CASSILO, M.A. Communication and Theatre
JUDITH CETINA, Ph.D.
Theology and Religious Studies
ALYSSA CHARRIER, Ph.D.
Biology
CAROLINE CHESEBROUGH, Ph.D.
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VITELIA CISNEROS, Ph.D.
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ROBERT CLAIR, Ph.D.
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CLAIRE CONNELLY, M.A.
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DANIEL COYLE, M.S.
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RAND CURTISS, M.B.A.
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BEAU DAANE, M.B.A.
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DONALD DAILEY, B.S.B.A./CPA
Accountancy

KAY DASHER, M.Ed.
Education and School Psychology
DESMOND DAVIS
Fine Arts
JASON DAVIS, Ph.D.
Political Science
MICHELLE DAVIS, M.Ed.
Exercise Science
MICHAEL DEBOARD, M.S.
Chemistry
CHRISTINA DeVOSS, M.S.
Communication and Theatre
ERNEST DEZOLT, Ph.D.
Sociology and Criminology
Economics and Finance
STEPHEN DINDA, Ph.D.
Mathematics and Computer Science
BARBARA DLUGOSZ, M.Ed.
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LAITEISHA DOBBINS, M.S.
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MARIA DONALDSON-MISENER, M.A./ ABD Psychology
PAMELA EBERT, M.A.
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ELANA FERRI, M.A.
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LISA FLAHERTY, Ph.D.
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ERIC FRANTZ, M.B.A.
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AMY FREIDLING, M.A./ABD
Counseling
JULIE FRIEDMAN, M.F.A.
Art History
MARTIN FRIEDMAN, Ph.D.
Communication and Theatre
GAYLE GETTS, M.A.
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PABLO GOMEZ, M.A. Classical and Modern Languages
OTIS GOODEN, M.A.
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GEORGE GOODRICH, B.S.B.A./CPA
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SAM GREEN, Ph.D.
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RICHARD HENDRICKSON, Ph.D.
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JUAN HERNANDEZ, J.D.
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MARYBETH HILBORN, M.Ed.
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KAYOKO IRE-FRYE, AS
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RAMEZ ISLAMBOULI, M.A.
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Philosophy

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TERRANCE McCLAIN, PH.D.
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VALERIE McGOWAN-DOYLE, Ph.D.
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ROBERT McKINNEY, M.S.
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FRANÇOISE ROLLAND, M.A. Classical and Modern Languages
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REIKO SIMMONS, Ph.D.
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PAUL SPICUZZA, B.S.B.A.
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STEPHANIE STRICKLER, Ph.D.
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ANDREW STYPINSKI, Ph.D.
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AMANDA SULICZ, M.S.
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LEAH SZALAI, Ph.D.,
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MELANIE TABAK, Ph.D.
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Management, Marketing, and Supply
Chain
ALEX TEODOSIO, M.B.A.
Management, Marketing, and Supply
Chain
JANIS THIEDEMANN, ABD
Management, Marketing, and Supply
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ANDREW TREW, J.D.
Philosophy
BRANDO TUPAZ, M.A.
Counseling
MARGARET TURBETT, M.A.
Communication and Theatre
EILEEN TUROFF, M.A.
English
JIMMY TYREE, M.A.
Communication and Theatre
MARY VANAC, M.B.A.
Management, Marketing, and Supply Chain

ARTHUR VARNES, Ph.D.
Chemistry
JEAN VOTYPKA, M.Ed.
Education and School Psychology
GEORGE VOURLOJIANIS, Ph.D.
History
KEVIN WALLACE, ABD
Leadership
SUSAN WALLIN, B.A.
Fine Arts
KRISTINA WANER, M.Ed.
Education and School Psychology
MICHELE WEISS, M.A.
Accountancy
DAVID WILDER, M.F.A.
Art History/Humanities
CHRISTIAN WILK, M.A.
Exercise Science
CORY WILSON, Ph.D.
Theology and Religious Studies
KAREN WILSON, J.D.
Management, Marketing, and Supply Chain
MEGAN WILSON-REITZ, M.A.
Theology and Religious Studies
DANIEL WINTERICH, J.D.
Sociology and Criminology
DANIEL WOLF, M.A.
Exercise Science
BEATRICE WOOD, Ph.D.
Theology and Religious Studies
ALISON YASICK, Ph.D.
Biology
ADRIENNE YELSKY, M.Ed.
Education and School Psychology
KENNETH ZAJACZKOWSKI, B.S.B.A/CPA
Accountancy
JASON ZASTROW, M.S.
Exercise Science
NICOLE ZAVODNY, M.A.
Communication and Theatre
DONALD ZELLER, M.S.E.E.
Mathematics and Computer Science

## Graduate Assistants-2017

Adams, Brittany, B.S.
Student Affairs/Student Engagement
Alarcon Rodriquez, Consuelo, B.S.
Biology
Armelli, Brian, M.A.
Student Affairs/Recreation
Arrowsmith, Samantha, B.A.
Counseling
Bartlett, Rachel, B.A.
Counseling
Becza, Noemi, B.S.
Biology
Brumbill, Bryant, B.S.
Biology
Cahill, Sean, B.A.
Theology \& Religious Studies
Carver, Ariana, B.A.
Boler School of Business
Cirino, Lisa, B.S.
Center for Career Services
Davis, Sarah, B.A.
English
DeMarchi, Joseph, B.S.
Biology
Dever, Joseph, B.A.
Athletics
DiCamillo, George, B.A.
Athletics
Fisher, Hayle, B.S.
Student Affairs/Student Engagement
Gargas, Cory, B.S.
Biology
Gibala-Broxholm, Brent, B.S. Academic
Advising
Graves, Amelia, B.A.
English
Grolle, Elizabeth, B.S.
Biology
Hall, Jacquelyn, B.A.
Athletics
Hazukova, Vaclava, B.S.
Biology
Hohner, Julia, B.S.
Center for Service \& Social Action
Iorio, Silvia, B.A.
English

Johnson, Maria, B.A.
University Counseling Center
Kahai, Simrath-Leeza, B.S.B.A.
Early College Mentoring Program
Kesterson, Josh, B.A.
English
Kramer, Stacy, B.A.
Student Affairs/Violence Prevention \&
Action Center
Lange, Zachary, B.A.
Biology
Laterza Barbosa, Julia, B.S.
Biology
Linnville, Maxwell, B.A.
Theology and Religious Studies
Litzinger, Elizabeth, B.A.
Education and School Psychology
Lopuchovsky, Carey, B.A.
Institutional Effectiveness
Lukehart, Victoria, B.S.
Education \& School Psychology
Maclean, John
Athletics
Maras, Elly, B.A.
Education \& School Psychology
Martinez-Yerena, José, B.S.
Biology
Matgouranis, Hannah, B.A.
Student Accessibility Services
Mazzaferri, Emily, M.A.
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McDowell, Madeline, B.S. Athletics
McGervey, Matthew, B.S.
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Supply Chain
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Athletics
Nielsen, Reina, B.A. Biology
Ortosky, Marissa, B.A.
English
Pantani, Nicole, B.S.
Office of Student Affairs
Perez, Christina, B.A.
Theology and Religious Studies
Poston, Elizabeth, B.S.
Student Affairs/Commuter/NSO

Rabbitt, Gregory, B.A.
English
Rafoth, Ellie, B.A.
English
Ramsey, Max, B.A.
Economics and Finance
Rivera, Nelson, B.S.
Biology
Rizzo, Christopher, B.A.
Athletics
Schratz, Rachel, B.A.
English
Scott, Tessa, B.S.
Learning Commons
Shelton, Jenni, M.A.
Theology and Religious Studies
Shewbridge, Kelsey, B.A.
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Education and School Psychology
Snow, Rebecca, B.S.
Non-Profit Administration
Stewart, Jessica, B.A.
Boler School of Business

Stolarski, Angelica, B.A.
Theology and Religious Studies
Suttles, Hannah, B.S.
Academic Advising
Svitana, Abigail, B.S.B.A.
Boler School of Business
Talerico, Natalie, B.A.
Center for Student Diversity and Inclusion
Tamas, Elizabeth, B.S.
Athletics
Taylor, Allison, B.A.
Education and School Psychology
Taylor, Emily, B.A.
Athletics
Thiry, Derek, B.S.
Biology
Tomusko, Emily, B.A.
English
Uterhark, Emily, B.A.
Humanities
Wang, Qiushi, LL.M.
Accountancy
Winston, Shanice, B.A.
Center for Digital Media


## Appendix:

## The "Old" University Core Curriculum

The information in this appendix is provided for the convenience of students who entered John Carroll University before Fall 2015 or who entered in Fall 2015 with post-first year status. In other words, it is intended for students who are subject to the "old" or distributive University Core Curriculum as opposed to the new Integrative Core Curriculum that launched in Fall 2015.

## 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.
- 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 that follows.

| UNIVERSITY CORE |  |
| :---: | :---: |
| DIVISION I BASIC CORE | DIVISION II HUMANITIES |
| 17-19 credits* | 9 credits** |
| First Year Seminar (3 cr.) <br> English Composition (6-8 cr.) <br> Speech Communication (2 cr.) <br> Foreign Language (6 cr.) | Art History <br> Classical \& Mod. Lang. \& Cultures Communication and Theatre Arts English <br> History |
| DIVISION III <br> SOCIAL SCIENCES | DIVISION IV <br> SCIENCE AND MATHEMATICS |
| 6 credits*** | 10 credits**** |
| Economics <br> Political Science <br> Sociology and Criminology <br> DIVISION V <br> PHILOSOPHY AND RELIGIOUS STUDIES | Biology <br> Chemistry <br> Computer Science <br> Mathematics <br> Physics <br> Psychology |
| 15 credits |  |
| Philosophy ( 9 cr.) <br> Theology and Religious Studies ( 6 cr.) |  |
| Additional Requirements: <br> - One writing-intensive course beyond English Composition. <br> - Two international courses (one of which must study one or more societies of Asia, Africa, or Latin America). <br> - One course which focuses on issues of diversity. <br> ${ }^{*}$ 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. <br> ${ }^{* *}$ Three courses: one literature course, one course in either History (HS) or Art History (AH), and one additional course. <br> ${ }^{* * *}$ Two courses from two disciplines. <br> ****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.)

## 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.

## 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 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 Student Accessibility Services 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.

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.

## 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 $21^{\text {st }}$ 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.

## - 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.
[Please note that the following rule applies only to students following the "old" University Core Curriculum, not the new Integrative Core Curriculum.]

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.

## Appendix2: <br> Glossary of Terms

## The University employs the following terms and usages to describe John Carroll academic programs.

Academic Program: A combination of courses and related activities organized for the achievement of specific educational objectives as defined by the University. This may include programming at both the undergraduate and graduate levels and consists of degrees, majors, concentrations, minors, and certificates.

Academic Transcript: The comprehensive document that details the entire permanent academic record of a student at the University. The official transcript is a formal document that can be obtained only by the student through the Office of the Registrar. Unofficial transcripts, accessed from BannerWeb or the Office of the Registrar, are intended as reference documents only.

Certificate Program: A structured set of courses in an applied area of focus normally requiring completion of 12 to 18 credit hours. The certificate is awarded to students demonstrating mastery of skills and knowledge in a specific area or discipline and is not normally part of other programs leading to a degree.

Concentration (formerly called "track"): A structured, specialized plan of study within a major. The number of credit hours for a concentration varies, and is included within the credit hours for the major. The concentration appears on the academic transcript once the degree is awarded.

Degree: A credential that the University awards to a student who has satisfactorily completed a degree program. Degree requirements are established by the University and are approved by the University and the Ohio Board of Regents. John Carroll University awards degrees at the Bachelor's [undergraduate], Master's [graduate], and post-Master's Specialist levels. The degree awarded appears on the academic transcript.

Degree Program: An approved, academic program of study that leads to a degree which John Carroll University is authorized to offer. Degree requirements are typically stated in terms of numbers of credit hours and specific courses at university, college/school, and discipline levels, as referenced in the official bulletins of the University.

Degree Type: Each degree level has multiple degree types. At John Carroll University, the bachelor's degree includes the Bachelor of Arts (B.A.), the Bachelor of Arts in Classics (B.A.Cl.), the Bachelor of Science (B.S.), the Bachelor of Science in Business Administration (B.S.B.A.), and the Bachelor of Science in Economics (B.S.E.).

The master's degree includes the Master of Arts (M.A.), the Master of Business Administration (M.B.A.), the Master of Education (M.Ed.), and the Master of Science (M.S.). In addition, the University offers the post-Master's level Education Specialist degree (Ed.S.).

Diploma: A ceremonial document naming a degree that has been conferred by the University.

Major: The student's primary field of undergraduate study. The major course of study may be discipline-specific or interdisciplinary. The major requires completion of a minimum of 33 credit hours. The major appears on the academic transcript once the degree is awarded.

Minor: An optional, secondary field of study at the undergraduate level. A minor is a structured plan of study requiring completion of a minimum of 18 credit hours and normally no more than 29 credit hours. No student may declare a major and a minor in the same discipline or field. The minor appears on the academic transcript once the degree is awarded.


# Appendix3: <br> 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 Student Accessibility Services ("SAS"). 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 SAS. The SAS office is located on the Garden Level of the Administration Building, in Room A-7. The SAS mailing address is Student Accessibility Services, 1 John Carroll Boulevard, University Heights, Ohio 44118. The SAS phone number is (216) 3974967. In the event the grievance is against the Director, the grievant should file the grievance with the Assistant Provost for Academic Advising and Student Success. The office of the Assistant Provost is located on the first floor of the Administration Building, Room 125. The mailing address is Office of the Provost and Academic Vice

President, 1 John Carroll Boulevard, University Heights, Ohio 44118. The phone number of the Assistant Provost for Academic Advising and Student Success is (216) 397-6674.

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 any specific relief sought. Upon receipt of a grievance, the Director or the Assistant Provost 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 Assistant Provost. All evidence shall be submitted within twenty-one (21) days following the submission of the written statement.

The Director or the Assistant Provost 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 Assistant Provost 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 Assistant Provost has issued a finding, any party may make a written request that the Director or Assistant Provost 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 Assistant Provost for Academic Advising and Student Success. If the grievance is against the Director, the Assistant Provost shall submit a written report to the Provost and Academic Vice President (the "Provost"). The Assistant Provost 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 AD 133. 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 Assistant Provost 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 Assistant Provost 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.

## Index

Departments and programs that have their own sections in the Bulletin are listed here with the letter code used to designate courses offered by them, e.g., Chemistry (CH).

## A

Academic awards . . . . . . . . . . . . . . . . . . . . . 49 Borromeo Seminary Institute . . . . . . . . . . . 167
Academic divisions. . . . . . . . . . . . . . . . . . . . . . 10 Breen Learning Center
61
Academic honesty. . . . . . . . . . . . . . . . . . . . . . 118
Academic probation . . . . . . . . . . . . . . . . . . . 124
Academic reports . . . . . . . . . . . . . . . . . . . . . . 122
Academic warning . . . . . . . . . . . . . . . . . . . . 124
Accountancy (AC)
133
Accreditation and memberships . . . . . . . . . 11
Administration, University . . . . . . . . . . . . 467
Admission. . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
application fee and procedures . . . . . 17
international students. . . . . . . . . . . . . 19
part-time students . . . . . . . . . . . . . . . . . 22
readmission. . . . . . . . . . . . . . . . . . . . . . 23
reinstatement . . . . . . . . . . . . . . . . . . . . 23
summer admission. . . . . . . . . . . . . . . . . 24
testing required . . . . . . . . . . . . . . . . . . 19
transfer students . . . . . . . . . . . . . . . . . 20
transient students . . . . . . . . . . . . . . . . 24
Advanced Placement . . . . . . . . . . . . . . . . . . . . 25
Advisors, academic . . . . . . . . . . . . . . . . . . . 110
Affiliations . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
Alumni Association . . . . . . . . . . . . . . . . . . . . 13
Art History and Humanities (AH) ...... . 140
Arts and Sciences (AR) . . . . . . . . . . . . . . . . 147
Arts and Sciences, College of. . . . . . . . . . . . 80
admission. . . . . . . . . . . . . . . . . . . . . . . . 80
majors...................................... . . . 80
minors. . . . . . . . . . . . . . . . . . . . . . . . . . . 82
Assessment of Student Learning. . . . . . . . . . . 9
Athletics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 46
Attendance regulations . . . . . . . . . . . . . . . . . 113
Audit . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 112
Awards and honors, student. . . . . . . . . . . . . 48

## B

Biology (BL) . . . . . . . . . . . . . . . . . . . . . . . . . . 152
Board of Directors . . . . . . . . . . . . . . . . . . . . 466
Boler School of Business . . . . . . . . . . . . . . . . . 85
admission. . . . . . . . . . . . . . . . . . . . . . . . 86
majors.......... . . . . . . . . . . . . . . . . . . . . 86
minors.................................... . . . 89
sequences. . . . . . . . . . . . . . . . . . . . . . . . 91
Business Intelligence (BI) . . . . . . . . . . . . . . 169

## C

Calendar, academic . . . . . . . . . . . . . . . . . . . 14
Campus, description of . . . . . . . . . . . . . . . . . 10
Campus living . . . . . . . . . . . . . . . . . . . . . . . . 42
Campus map. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 526
Campus Ministry . . . . . . . . . . . . . . . . . . . . . . 56
Campus police. See John Carroll Police Department . . . . . . . . . . . . . . . . 61
Career Education (CE) . . . . . . . . . . . . . . . . . . . 171
Centers . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 97
Career Services . . . . . . . . . . . . . . . . . . 57
Digital Media. . . . . . . . . . . . . . . . . . . . . 59
Global Education . . . . . . . . . . . . . . . . . 97
Service and Social Action . . . . . . . . . 97
Student Diversity and Inclusion . . . . 59
Teaching and Learning. . . . . . . . . . . . 98
Chairs, department . . . . . . . . . . . . . . . . . . . . 132
Chemistry (CH) . . . . . . . . . . . . . . . . . . . . . . . . 172
Chinese (CN) . . . . . . . . . . . . . . . . . . . . . . . . . 181
Classical and Modern Languages
$\quad$ and Cultures (CMLC) . . . . . . . . . . . . 183
Classics (CL). . . . . . . . . . . . . . . . . . . . . . . . . . 187
College Level Examination
Program (CLEP) . . . . . . . . . . . . . . . . . . 33
Commencement. . . . . . . . . . . . . . . . . . . . . . . . 12
Committees
Faculty Council. . . . . . . . . . . . . . . . . . 474
University . . . . . . . . . . . . . . . . . . . . . . 475
Communication and Theatre (COMM) .. 190
Comprehensive examinations . . . . . . . . . . . 78
Computer Science (CS) . . . . . . . . . . . . . . . . 207
Concentration, Neuroscience. . . . . . . . . . . . 83
Core Curriculum, University
Distributive . . . . . . . . . . . . . . . . . . . . . 479
Integrative . . . . . . . . . . . . . . . . . . . . . . . 67
Counseling Center, University. . . . . . . . . . . 66
Course load. . . . . . . . . . . . . . . . . . . . . . . . . . . . 110
Course repeat . . . . . . . . . . . . . . . . . . . . . . . . . . 122
Credit. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 111
Criminology (SC) ..... 413
Cross-registration ..... 126
D
Data Science (DATA) ..... 213
Dean's List ..... 123
Debating ..... 45
Degrees ..... 519
Boler School of Business ..... 85
College of Arts and Sciences ..... 80
Graduate ..... 108
Department and course codes ..... 129
Dismissal, academic ..... 125
Double major ..... 77
$\mathbf{E}$
East Asian Studies (EA) ..... 218
Economics (EC) ..... 223
Education and School Psychology (ED) ..... 228
Elective courses ..... 78
Endowed centers.454Endowed chairs454
Endowed lectureships and awards ..... 460
Endowed professorships ..... 459
Engineering Physics (EP) ..... 376
Engineering programs. ..... 377
English (EN) .....  296Enrollmentconcurrent125
early ..... 24
Entrepreneurship (ER) ..... 260
Exercise Science (EPA) ..... 263
Expenses. ..... 34
F
Faculty
adjunct ..... 503
current ..... 483
lecturers ..... 503
retired ..... 475
Faculty awards ..... 464
Faculty Council ..... 474
Fees ..... 55
Final examinations, absence from ..... 114
Finance (FN) ..... 263
Financial aid. ..... 38
application ..... 38
eligibility ..... 38
government grants ..... 40
loan programs ..... 40
merit-based scholarships ..... 38
renewal. ..... 38
Veterans Educational Benefits ..... 40
Fine Arts (FA) ..... 277
applied music. ..... 279
choral ensembles ..... 277
instrumental ensembles ..... 278
Fraternities and Sororities ..... 45
French and Francophone Studies (FR). ..... 282
GGender, Sexuality, andWomen's Studies (GEND)289
General information. ..... 5
German (GR) ..... 294
Grades, appeal of. ..... 120
Grading system ..... 116
Graduate and professional study. ..... 101
Graduate assistants ..... 509
Graduate assistantships ..... 109
Graduate Studies. ..... 108
Graduation honors ..... 123
Graduation requirements ..... 122
Arts and Sciences. ..... 83
School of Business ..... 87
Greek (GK) ..... 297
H
Health Professions ..... 103
History (HS) ..... 299
Honors Program (HP) ..... 310
Human Resource Management (MHR) ..... 337
Humanities ..... 314
I
Independent study ..... 79
Information Technology Services. ..... 60
Institutes. ..... 98
Catholic Studies ..... 99
Ignatian Spirituality ..... 98
Corporate Social Responsibility. ..... 99
International Baccalaureate. ..... 29
International Business with Language and Culture (IB) ..... 317
International Cultures (IC) ..... 322
Italian Studies (IT) ..... 327

## J

Japanese (JP) ..... 330
Jesuit tradition ..... 5
L
Latin (LT) ..... 332
Law, requirements for studying ..... 105
Leadership Development (LP) ..... 334
Liberal education definition and objectives ..... 67
University Core Curriculum ..... 67
Library ..... 60
M
Majors
Boler School of Business. ..... 87
College of Arts and Sciences ..... 81
Definition of ..... 520
Management and
Human Resources (MHR) ..... 337
Marketing (MK). ..... 341
Mathematics (MT) ..... 347
Military Science (MS) ..... 356
Minors
Boler School of Business ..... 89
College of Arts and Sciences ..... 82
Interdisciplinary Minors ..... 94
Mission, University ..... 5
Modern Languages (ML) ..... 363
MusicCourses. See Fine Arts (FA)277
Groups. See Fine Arts (FA) ..... 278
0
Orientation, new student ..... 110$\mathbf{P}$Parking62
Pass/Fail option. ..... 112
Peace, Justice, and
Human Rights (PJHR) ..... 364
Philosophy (PL) ..... 367
Physics (PH) ..... 376
Plagiarism. ..... 118
Political Science (PO) ..... 385
Pre-Health Professions (PHP) ..... 397
Privacy of records (FERPA) ..... 63
Privilege ..... 125
Programs ..... 99
Applied Ethics. ..... 100
Arrupe Scholars ..... 99
Bishop Anthony M. Pilla Program in Italian American Studies ..... 100
Psychology (PS) ..... 399
Publications, student ..... 45
R
Radio station (WJCU-FM) ..... 45
Refunds ..... 37
Registrar, Office of the. ..... 63
Registration ..... 63
Residence halls ..... 42
Room and board ..... 36
ROTC. ..... 356
Russian (RS) ..... 410
SSchool of Business. See BolerSchool of Business85
Slovak (SL) ..... 412
Sociology (SC) ..... 413
Spanish (SP) ..... 425
Sports Studies (SPS) ..... 431
Student Engagement. ..... 44
Student classifications. ..... 117
Student Health Center ..... 65
Student life ..... 42
Student services ..... 56
Student Union ..... 44
Student Accessibility Services ..... 65
Study abroad ..... 126
Supply Chain Management (SCM) ..... 437
T
Teacher education. ..... 230
Telephone numbers, campus .....  3
Theatre ..... 46
Theology and Religious Studies (TRS) ..... 440
Transcripts. ..... 63
Transfer of credit ..... 76
Tuition ..... 34
W
Withdrawal ..... 115
Writing Center ..... 79


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1 John Carroll Boulevard University Heights, Ohio 44118


[^0]:    *Studio Art credits will not count toward the 33 credit hours required to earn a degree in Art History.

[^1]:    ** Not currently accepted for credit. To be considered, the student must provide a syllabus from his or her high school for this course, along with a transient petition form.

[^2]:    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.
[^3]:    321. LITERATURE IN THE AGE OF THE STUARTS AND THE CIVIL WAR
    $\mathbf{3}$ 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.
[^4]:    310. METHODS, MATERIALS, AND RESOURCES IN EXERCISE SCIENCE AND SPORTS STUDIES 3 cr. Prerequisite: acceptance into Exercise Science or Sports Studies major. Examination and development of individual mission, goals, and philosophy statements relevant to specific career plans. Examination of the role of movement within the multiple career plans, relevance
[^5]:    *Deceased

[^6]:    *Deceased

[^7]:    *Deceased

