

# CARLOW UNIVERSITY 

UNDERGRADUATE COURSE CATALOG $\vdots 2015-2016$

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WWW.CARLOW.EDU


## EQUAL EDUCATIONAL AND EMPLOYMENT OPPORTUNITY POLICY

One of the core values of Carlow University is Sacredness of Creation. We revere each person and all creation and the diversity they embody. The University, as an educational institution, and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. We respect our diversity as we are called in both the University's Mission and Core Values. Our commitment to inclusivity, respect, and acceptance informs every aspect of the University community.

Accordingly, the University prohibits and will not engage in discrimination or harassment on the bases of race, color, religion, sexual orientation, handicap or disability, sex, age, pregnancy, ancestry, national origin, place of birth, genetic information, gender identification, veteran's status, or any other category protected by federal, state or local law. This policy applies to all programs and activities, with respect to both admissions and employment.

Questions and concerns about equal opportunity should be directed to the University's EEO Coordinators:

Andra Tokarsky, Director of Human Resources
P: 412.578.8897
E: amtokarsky®carlow.edu

Jennifer A. Carlo, PhD, Vice President for Student
Engagement/Dean of Students
P: 412.578.6987
E: jacarloीacarlow.edu

Information about how to file a complaint using the Student Disability and Discrimination Policy may be found in the Carlow University Student Handbook on myPortal.

## Americans with Disabilities Act

Carlow University makes reasonable accommodations to provide qualified students with disabilities the opportunity to take full advantage of programs, activities, services, and facilities. For more information, please see page 27.

## Disaster Statement

If there is a natural disaster that interrupts your long-term participation in a course(s), Carlow University will apprise you of the options available to complete your academic course work.

## About the Carlow University Undergraduate Course Catalog

The Carlow University Undergraduate Course Catalog is the official record of Carlow University for fall 2015 through summer 2016. It contains information correct at the time of publication. Carlow University reserves the right to alter any or all statements contained herein. Consequently, this document cannot be considered binding and is to be used solely as an informational guide. Students are responsible for keeping themselves informed about official policies and for meeting all relevant requirements.

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## Carlow UNIVERSTY



## CARLOW UNIVERSITY VISION

Carlow University will be a preeminent, innovative, Catholic university, renowned for providing transformational learning experiences in which students realize their full potential and become career-ready ethical leaders committed to a just and merciful world.

## CARLOW UNIVERSITY MISSION

Carlow University, rooted in its Catholic identity and embodying the heritage and values of the Sisters of Mercy, offers transformational educational opportunities for a diverse community of learners and empowers them to excel in their chosen work as compassionate, responsible leaders in the creation of a just and merciful world.

## VALUES

MERCY: The identifying value of Carlow University is Mercy, encompassing all that we are and do as a University. Inspired by our God of Mercy, this value urges us to open our hearts to our students, our colleagues, and our world. In the tradition of action and contemplation, we seek practical ways of addressing need and we engage in reflection in order to understand and integrate our experiences. Education offers us the tools to address unjust structures and dehumanizing situations. Each discipline provides a lens through which we can envision our place in our own personal transformation and that of the global community. The values of Service, Discovery, Hospitality, and the Sacredness of Creation further expand our understanding of the power of Mercy to change our world.

HOSPITALITY: In Hospitality we welcome the wholeness of each person, creating a space in our campus community for all individuals with their varied beliefs, cultures, orientations and abilities. Openness to the gifts and perspectives of all creates a community rich in diversity and committed to inclusion.

SERVICE: The value of Service calls us beyond ourselves to prioritize the needs of others over our own self-interest. Our efforts to identify and respond to the needs we see around us lead us to interact with persons and institutions in ways which are transformational. Our spirit of compassion leads us to practical action on behalf of those in need.

DISCOVERY: Through Discovery we open ourselves to the totality of our human experience, to the educational enterprise, to our relationship with the Divine, and to the wonders of the world in which we find ourselves. Discovery energizes our intellectual curiosity and desire for learning. It leads us ever deeper in the engagement with our chosen discipline and engenders a spirit of awe at the complexity and variety of creation.

SACREDNESS OF CREATION: This value leads us to a respect for each person and for all of creation. In gratitude for the beauty and variety of our world and its inhabitants, we commit to a culture of sustainability and to the preservation of a world where all are reverenced and all may thrive.

## PHILOSOPHY STATEMENT

The philosophy of Carlow University is guided by a commitment to the Catholic Intellectual Tradition, a belief in the transformative power of the liberal arts, and a dedication to undergraduate and graduate education that instills social responsibility and a desire to work for the good of all humankind. These ideals are touchstones of a Carlow education, informing the institution's mission and values so that students can realize their full potential and become ethical leaders in their personal and professional lives who are committed to a just and merciful world.

Rooted in the Catholic Intellectual Tradition, Carlow University recognizes the dignity of all human persons and the value of all creation, and understands that genuine wisdom and knowledge yield imperatives for justice. As a result, the institution seeks to graduate individuals who become engaged citizens of the world, capable of establishing transformative relationships of compassion and empathy. The love of learning and the desire for God are understood to manifest themselves in the relationship between reason and faith. Catholic Intellectual Tradition posits that truth is not divided, that truth in science is not at odds with truth in religion, thus at Carlow truth is explored through a "both/ and" (analogical) rather than an "either/or" (dialectical) approach. Understanding that no one academic discipline contains all truth, Carlow University promotes an interdisciplinary and multidisciplinary approach to research and scholarship, believing that creative, imaginative attentiveness to the world requires acknowledging the complexity required to interpret it.

This attentiveness to the world is also evident in the University's belief in the transformative power of the liberal arts. Derived from the Latin word liber for "free," the liberal arts have been the foundation of higher education for centuries because they free individuals to think clearly and creatively about themselves and the world in which they live. Carlow is committed to the liberal arts as part of its undertaking to educate the whole person: body, mind, and spirit. Fundamentally, the liberal arts focus on what it means to be human in all its complexity. Rather than approaching human experience from a finite perspective or insisting on rigid viewpoints that inhibit knowledge or limit thinking, the liberal arts encourage intellectual exploration and often pose problems that have no easy solutions. When students engage with the essential issues explored in the liberal arts, their lives are transformed, and they leave the institution ready to help transform society through their ability to comprehend and address the complex challenges of the world.

A commitment to transforming the world flows from the values of the founders of Carlow University. When the Sisters of Mercy launched Mount Mercy College in 1929, they were pioneers for women's higher education by combining scholarship in the liberal arts with career development in the professions, thus providing young women in the Pittsburgh area equal educational opportunities with men. The Sisters of Mercy were inspired by their founder Catherine McAuley's efforts to reform societal attitudes toward women by recognizing their inherent dignity and by helping women become self-directing and self-sustaining. As Carlow began to admit male veterans after World War II, it was clear that an educational approach that values women is beneficial to male and female students because it champions the inherent worth of all voices and creates a pedagogical and scholarly environment that includes those who have been historically excluded. The Mercy approach to teaching and scholarship creates a campus culture where men and women experience empathy and mutual respect, while valuing inclusion, flexibility, and collaboration.

In practice, the University's philosophy leads to undergraduate and graduate pedagogy and curricula that are rooted in social justice and require Carlow students and graduates to challenge or affirm existing or prevailing values in the workplace and the world. Through coursework, research, internships, and residencies, Carlow students embody the integrative Mercy approach to rigorous scholarship, creative thinking, and problem solving. Through the innovative liberal arts core experience, undergraduate students develop creative and critical reasoning skills essential to any professional, vocational, or personal situation. The original vision of the founders uniquely positions Carlow University today to offer an educational experience in which its graduates seek integrity in their lives and have the skills and conviction to create a more just and merciful world.

## DEGREES AND PROGRAMS

## Undergraduate Degrees

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Nursing
Bachelor of Social Work

## Graduate Degrees

Doctor of Nursing Practice (DNP)
Doctor of Psychology (PsyD)
Master of Arts (MA)
Master of Business Administration (MBA)
Master of Education (MEd)
Master of Fine Arts (MFA)
Master of Science (MS)
Master of Science in Nursing (MSN)

## ACCREDITATION

Carlow University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267.284.5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. Carlow is also accredited by the Commission on Collegiate Nursing Education and is approved by the Pennsylvania State Board of Nursing. Program approval is granted by the Pennsylvania Department of Education for Carlow University's teacher and school counselor preparation programs. The Bachelor of Social Work is accredited by the Council on Social Work Education. Carlow University's Doctor of Psychology in Counseling Psychology program is accredited by the American Psychological Association.

## MEMBERSHIPS

Association of Catholic Colleges and Universities, the Association of Governing Boards, the Conference for Mercy Higher Education, the Association of Independent Colleges and Universities in Pennsylvania, the College and University Personnel Association, the National Association of Independent Colleges and Universities, the Council of Independent Colleges, the National Association of College and University Business Officers, the American Association of Collegiate Registrars and Admissions Officers, the Society of College and University Planning, the Women's College Coalition, the Commission on Collegiate Nursing Education, the American Association of Colleges of Nursing, the American Association of Colleges and Universities, the Allegheny Conference on Community Development, the African-American Chamber of Commerce, the Greater Pittsburgh Chamber of Commerce, the Public Leadership Education Network, and the Pittsburgh Council on Higher Education. Carlow University is recognized by the Carnegie Foundation as a comprehensive Masters Medium level institution.

## PROGRAMS OF STUDY

Carlow University is chartered by the Commonwealth of Pennsylvania and is authorized by the Pennsylvania Department of Education to award the following undergraduate degrees:

## UNDERGRADUATE MAJORS

## Accounting

Art

- with concentration in Art History
- with concentration in Ceramics
- with concentration in Painting and Drawing
- with Art Education and certification (Grades K-12)


## Art Therapy Preparation

## Biology

- with concentration in Autopsy Specialist
- with concentration in Human Biology
- with certification in Perfusion Technology
- with Secondary Education/Biology certification (Grades 7-12)
- with Secondary Education/General Science certification (Grades 7-12)


## Business Management

## Chemistry

- with Secondary Education and Chemistry certification (Grades 7-12)


## Communication and Media

Corporate Communication

## Creative Writing

## Criminal Justice

- with concentration in Corrections


## Early Childhood Education

- with certification (PreK through Grade 4)


## Early Development and Learning

English

- with Secondary Education and English certification (Grades 7-12)


## Forensic Accounting

History

- with Secondary Education/Social Studies certification
(Grades 7-12)


## Human Resource Management and Technology

## Liberal Studies

## Management in Health Services

## Mathematics

- with Secondary Education/Math certification (Grades 7-12)


## Middle Level Education (Grades 4-8)

- with Science certification
- with Social Studies certification
- with English/Language Arts certification
- with Mathematics certification
- with Social Studies and Science certifications
- with Social Studies and Mathematics certifications
- with Science and Mathematics certifications
- with English/Language Arts and Science certifications
- with English/Language Arts and Mathematics certifications


## Nursing

Philosophy

## Political Science

- with concentration in Computer Investigations and Security

Psychology

- with concentration in Counseling
- with concentration in Human Development
- with concentration in Crisis and Trauma


## Respiratory Care

## Social Work

- with concentration in Behavioral Health Service Coordination
- with concentration in Crisis and Trauma


## Sociology

Special Education Certification

- must be combined with certification in Early Childhood, Middle Level, or Secondary Education
Theology


## PARTNERSHIPS AND PROGRAMS

THE ART INSTITUTE OF PITTSBURGH

- Art: Graphic Design
- Art: Web Design and Interactive Media
- Art: Media Arts/Animation
- Art: Photography


## DUQUESNE UNIVERSITY

- 3/3 JD Law Program
- Biology/Environmental Science and Management
- Biology/BS to MS in Biotechnology

UNIVERSITY OF PITTSBURGH/UPMC

- 3/3 JD Law program
- Early assurance admission to Graduate School of Public and International Affairs (for social change majors)
- UPMC Nursing Program
- UPMC Shadyside Perfusion Program


## COMMUNITY COLLEGE OF ALLEGHENY COUNTY

- Joint Admission RN-BSN Program

SLIPPERY ROCK UNIVERSITY

- Art Education Teacher Certification Prep


## PARTICIPATING MEMBERSHIP INSTITUTION

- Pennsylvania Transfer and Articulation Center (PaTrac)


## CARLOW EDUCATIONAL OPPORTUNITIES

## ACCELERATED PROGRAMS

- BA/BS to MBA Business Administration
- $B A / B S$ to $M S$ in Fraud and Forensics
- $B A / B S$ to $M S$ in Professional Counseling
- BA to MEd with Certification in Special Education
- RN-BSN to MS in Nursing

CARLOW-ISSUED CERTIFICATES

- Accounting
- Forensic Accounting
- Autism Spectrum Disorders Endorsement

PRE-PROFESSIONAL INTERESTS

- Athletic Training
- Biology
- Osteopathy
- Veterinary Medicine
- Pharmacy
- Physical Therapy
- Physician Assistant
- Podiatry
- Occupational Therapy
- Optometry
- Organismal/Ecological
- Dentistry
- Law
- Medicine
- Molecular/Cell Biology


## ADMISSIONS

## ADMISSION TO CARLOW UNIVERSITY

The Carlow University community nurtures creativity, diversity, talent, and skill. Carlow welcomes any student who combines academic achievement, ability, motivation, and maturity. Carlow welcomes students of all religious beliefs. At Carlow, students of various ages, academic backgrounds, and interests contribute to the overall educational experience. Any applicant who shows leadership potential and initiative, combined with a sincere determination to contribute to the campus community and to achieve academically, is considered for admission.

A conscious effort is made to enroll a student body that represents capable students with diverse interests and backgrounds.

Carlow operates on a rolling admissions policy for most programs. As soon as a complete admissions application is submitted to the University, it is reviewed and evaluated, and applicants are notified of the decision of the admissions committee. Prospective students seeking admission (or re-admission) can contact the Office of Admissions directly at 1.800.333.2275.

Formal admission to some academic programs and/or concentrations requires satisfactory progress within those programs and/or completion of a secondary admissions process.

All academic programs have essential standards that must be met by students to successfully complete program requirements. Additional information and program guides are available from the academic departments and/or faculty advisors.

## OFFICE OF ADMISSIONS

Office of Admissions
Carlow University
3333 Fifth Avenue
Pittsburgh, PA 15213
Phone: 1.800.333.2275 or 412.578 .6059

## ADULT ADMISSIONS

Prospective students who have earned a GED or have been out of high school for four or more years can apply for day, evening, and/or weekend programs available at the main Oakland campus and/or alternate locations through the Adult Admissions Office. Those who would like to pursue a second degree or are interested in non-degree seeking or certificate programs are also encouraged to apply.

## CARLOW UNIVERSITY CRANBERRY EDUCATION CENTER

Regional Learning Alliance
850 Cranberry Woods Drive
Cranberry Township, PA 16066
Phone: 724.741.1028
Fax: 724.741.1012

## CARLOW UNIVERSITY GREENSBURG EDUCATION CENTER

J.A.S. Professional Park

4534 Route 136
Greensburg, PA 15601
Phone: 724.838.7399 or 1.877.451.3001
Fax: 724.838.7599

## TRADITIONAL FIRST-YEAR STUDENT ADMISSIONS REQUIREMENTS

The admissions committee makes decisions based upon a careful review of each application. To be considered for admission to Carlow as a traditional undergraduate student, applicants must present satisfactory evidence of the ability to achieve at the college level.

In general, students should:

- Follow the college preparatory curriculum in high school (18 units of academic preparation)
- Have a B average (preferred)
- Have satisfactory scores on the SAT/ACT

The Carlow University Admissions Committee recognizes that school curricula greatly varies, and will consider favorably the application of an academically-able student whose preparation and experience differs from the traditional college preparatory program.

## ADMISSIONS AND SCHOLARSHIP DEADLINES

Carlow operates on a rolling admissions basis, accepting applications from incoming first-year students through August. Due to space limitations in some programs such as nursing, students are strongly encouraged to complete the application process as soon as possible during their senior year to assure maximum consideration for admission and scholarships/financial aid.

High school and/or home school course work is one of the most important factors in admissions, particularly to more selective programs. It is strongly recommended that all students follow a college preparatory curriculum throughout high school. Those applying to science or nursing programs should complete both algebra II and chemistry, with trigonometry and advanced sciences also strongly recommended.

Prospective nursing candidates should have a 3.00 GPA and 1,000 SAT on the Critical Reading/Math combined (or 22 ACT), and have completed strong science and math courses (preferably with a grade of B or better in each). The Pennsylvania State Board of Nursing requires that applicants accepted into professional nursing programs must have completed, as a minimum, four units of English, three units of social sciences, two units of mathematics lone must be algebra), and two units of lab science, including chemistry.

## ADVANCED PLACEMENT AND PLACEMENT TESTS

Incoming first-year students who have taken Advanced Placement (AP) examinations, College Level Examination Program (CLEP) examinations, International Baccalaureate examinations (IB), or any college-level courses prior to enrolling at Carlow University, must submit their official exam scores and/or official college transcripts to the Office of Admission in a timely manner to assure proper credit evaluation and course registration.

## EARLY ENTRANCE

Candidates who wish to enroll after completion of high school in less than four years, may be considered for early entrance provided they have a high school diploma and:

- Meet all admissions requirements, including 18 units of high school work;
- Follow all procedures and submit required application;
- Exhibit the academic background for success at Carlow;
- Submit acceptable Scholastic Assessment Test (SAT) scores of the College Board or an acceptable American College Test (ACT) score.
- Submit Letters of Recommendation and Personal Statement. Although optional, both are strongly recommended.
- Arrange for a personal interview and a campus visit. Although optional, both are strongly recommended.
Early entrance applications should be completed no sooner than within one semester of completion of all high school requirements (i.e. after January for fall admissions and after May for spring admissions).


## TRANSFER REQUIREMENTS

Admission to Carlow University is determined on an individual basis. SAT/ACT scores are not required for transfer students, but may be one of the factors considered if you have minimal college credits; (less than 12 transferable credits).

Carlow accepts transfer credits from institutions recognized as an institution of higher education or which is accredited by a regional accrediting association recognized by the Council of Higher Education Accreditation. We will make every attempt to utilize the academic credits students earned with those of Carlow's curriculum and standards. A transfer course evaluation will be completed to approximate if and how courses will transfer. Grades must be a "C" or above in 100-level or higher courses to be transferred. Developmental courses at the 100-level do not transfer. See page 32 for more on Transfer of Credits.

## Required GPA

Students transferring to Carlow for programs in:

- Perfusion Technology must have a minimum 2.8 GPA and cumulative 3.0 GPA in the sciences
- Education must have a minimum 3.0 GPA. If the student is transferring 48 or more credits, he/she must also have successfully passed PAPA I or CORE ETS.
- Nursing must have a minimum 3.25 GPA with appropriate coursework.
- Pre-Nursing must have a minimum 3.0 GPA
- Social Work must have a minimum 2.5 GPA
- All other programs require a minimum 2.0 GPA


## When to Transfer

- BSN program-Spaces are limited and highly competitive; early application is recommended.
- RN-to-BSN-Students may apply anytime for spring or fall admission. In-class, online, and hybrid formats are offered.
- All other programs-We operate on a rolling admissions basis for transfers, typically through August each year for the fall semester and through December for the spring, or as long as space allows. However, students are encouraged to apply as early as possible.


## PROVISIONAL ADMISSION

Occasionally, an applicant is admitted to an undergraduate program as a provisionally admitted student. Provisional admission is granted to an applicant who does not fully meet all of the admissions criteria, but for whom we believe there is a strong possibility for academic success. As a condition of provisional admission, students are limited to 12-14 credits for their first semester. Students will have the opportunity to work with their advisors to schedule future semesters. Students are also strongly encouraged to take advantage of the many support services available at Carlow, including the Center for Academic Achievement.

## CONDITIONAL ADMISSION

Occasionally, an applicant is conditionally admitted to an undergraduate program. This occurs when final official documentation is still needed in order to be fully admitted to the university. Conditional admission is based on the student's ability to provide us with one or more final official transcripts or official standardized test scores. Once received, the student will be fully admitted to Carlow. As a conditionally admitted student, registration for the following semester and financial aid are held until a student is fully admitted to the University.

## ADMISSIONS PROCEDURES

## TRADITIONAL AND FIRST-YEAR STUDENT ADMISSIONS

Students applying for regular admission should:

- Submit a completed application form by applying online at www.carlow.edu.
- Ask a guidance counselor to forward a complete, official high school transcript* to the Office of Admissions indicating the student's cumulative GPA, courses taken and grades received, class rank (if available), and results of achievement and assessment tests.
- Submit scores from the Scholastic Assessment Test of the College Board (SAT) or the American College Testing (ACT) Program, unless they are already recorded on the high school transcript.
- Submit an essay or letter of recommendation as requested.
- Arrange for a personal interview and a campus visit. Although optional, both are strongly recommended.
* The transcript is considered official if it contains the seal of the institution and is issued directly to Carlow University. Transcripts delivered to the Office of Admissions by students are considered official only when sealed in an envelope, with the institution's seal over the flap. A final official high school transcript, certifying that a student has earned a high school diploma, is required to be officially enrolled. Faxed transcripts are not considered official. Official GED test scores may be accepted in lieu of high school transcripts. Carlow University will accept electronic transcripts for admissions purposes if the following criteria are met regarding the transcript:

1. The transcript is certified as official from the high school, college, and/or proprietary school using a third party agency for the certification process. Approved agencies include AVOW Systems, Docufide, National Student Clearinghouse, and Scrip-Safe.
2. The transcript must be a PDF certified document that has no indication of tampering.
3. A college official must receive the transcript from an approved e-transcript service.
4. Carlow University has the right to refuse electronic transcripts or request additional information if there is question about the authenticity of the document.

Admissions counselors are available to assist students and families during the admissions and financial aid processes. In many geographic regions, admissions counselors will visit prospective students and their families at their high school.

## SAT/ACT REQUIREMENTS

Carlow considers a variety of factors when reviewing student applications for admission, and the SAT/ACT scores represent only one factor. The average combined critical reasoning and mathematics scores for entering first-year students has been between 950-1,000 in recent years. Students scoring below 1,000 lon the combined critical reasoning and mathematics scores, excluding the writing score) are strongly encouraged to re-test, especially if they are interested in qualifying for selective programs such as nursing and/ or for significant academic scholarships. Some programs have established an SAT threshold.

## HOME-EDUCATED STUDENTS

Carlow University recognizes the unique experiences and benefits provided to home-educated students, and welcomes their applications. A home-educated student applying for admission should follow all admissions procedures for regular admissions as stated previously. Additional evaluations may be required.

## IRANSFER STUDENTS

Prospective transfer students applying for admission should:

- Submit a completed application form by applying online at www.carlow.edu
- Submit an official transcript* from each college and/or proprietary school previously attended- whether or not credit was earned-to the Office of Admissions; in some instances, an official high school transcript may also be required.
- Arrange for a personal interview and a campus visit. Although optional, both are strongly recommended. Admissions counselors are available to assist students and families through the admissions and financial aid processes.
* The transcript is considered official if it contains the seal of the institution and is issued directly to Carlow University. Transcripts delivered to the Office of Admissions by students are considered official only when sealed in an envelope with the institution's seal over the flap. A final official high school transcript, certifying that a student has earned a high school diploma, is required to be officially enrolled. Faxed transcripts are not considered official. Official GED test scores may be accepted in lieu of high school transcripts. Carlow University will accept electronic transcripts for admissions purposes if the following criteria are met regarding the transcript:

1. The transcript is certified as official from the high school, college and/or proprietary school using a third party agency for the certification process. Approved agencies include AVOW Systems, Docufide, National Student Clearinghouse, and Scrip-Safe.
2. The transcript must be a PDF certified document that has no indication of tampering.
3. A college official must receive the transcript from an approved e-transcript service.
4. Carlow University has the right to refuse electronic transcripts or request additional information if there is question about the authenticity of the document.

See page 32 for more on Transfer of Credits.
A catalog or a copy of the course descriptions for all courses taken at an accredited institution outside of Allegheny County may be requested in order to assess transfer credits to be awarded. Admissions counselors will inform candidates when additional information is necessary.

## ADULT STUDENTS

Students who have been out of high school for four or more years, should apply online at www.carlow.edu as an Adult Student. A prospective adult student applying for admission should submit the same application materials as a transfer student, indicated above. Adult students are able to attend day, evening, and/or weekend
programs at the Oakland campus, as well as the Cranberry and Greensburg sites. For more information regarding adult admissions, please call 1.800.333.2275 or 412.578.6059.

## RN-BSN PROGRAM ADMISSIONS REQUIREMENTS

Students applying to the RN-BSN program have two choices from which to select:

- RN-BSN Program
- RN-BSN to MS in Nursing Accelerated Program


## To be admitted to the RN-BSN Program, potential students must:

- Must be a graduate of an ACEN-, NLNAC-, or CCNE-accredited program and have a cumulative 2.0 GPA or above.
- Complete an online application.
- Have an active, current, valid, unrestricted license as a Registered Nurse. Clinical coursework must be completed in the Commonwealth or state of licensure.
- Meet both University and clinical agency health requirements.


## To be admitted to the RN-BSN to MS in Nursing Accelerated Program, potential students must:

- Have a 2.5 GPA or above.
- Complete an online application.
- Have a current license as a Registered Nurse. Licensure in the Commonwealth of Pennsylvania is required for clinical coursework completed in Pennsylvania.
- Submit two professional recommendation forms addressing the candidate's potential to succeed in graduate nursing education.
- Meet both University and clinical agency health requirements.
- Submit a personal statement indicating goals for graduate nursing education.
- Applicants interested in pursuing the MSN: Nurse Practitioner (Family/Individual Across Lifespan) must have one year or more of recent clinical (bedside) nursing experience in order to move from the BSN program courses to the nurse practitioner courses.


## PROFESSIONAL LIABILITY INSURANCE

All students in the nursing, perfusion technology, respiratory care, and social work programs will be covered by the University's professional liability coverage. The annual cost is approximately \$11 per year, but is subject to change, and is included as a fee attached to select courses. You will no longer be required to obtain coverage outside the University to meet this requirement.

## INTERNATIONAL STUDENTS: ADMISSION REQUIREMENTS AND PROCEDURES

Carlow University processes applications for international applicants who are visa holders as well as any applicant with schooling outside of the U.S. International students should obtain an application packet either electronically through admissions at admissionsØcarlow.edu or a hard copy from Office of Admission, Carlow University, 3333 Fifth Avenue, Pittsburgh, PA 15213. Or you can submit an application form by applying online at www.carlow.edu.

As an international student, in order to send your file to be reviewed by the committee, you must submit the documents outlined below.

- Copy of your passport
- A completed Educational Summary Sheet (download it online at www.carlow.edu)
- The originals or notarized (certified) copies of the originals are required for the documents outlined below and should be mailed directly to the Office of Admission.
- Proof of graduation loriginal/official transcripts are necessary and they must come in a sealed envelope from the institution.
- All official post-secondary transcripts. Applicant may have transcripts officially evaluated by one of the following evaluation companies:

Josef Silny and Associates
http://www.jsilny.com/html/foreign.htm
OR
World Education Services (WES)
http://www.wes.org/

OR
Educational Credential Evaluators (ECE)
https://www.ece.org/
Please request that the evaluation company send the official evaluation report directly to Carlow University. (However, if you have WES complete an ICAP evaluation you do not need to have your home country send an official transcript to Carlow.)

- A recent, official TOEFL, IELTS, or SAT score or 24 or more credits from an accredited U.S. college or university with a "C" or better (excluding ESL courses). Minimum scores are as follows: TOEFL-90 on the Internet Based Test with no subsection below 20. IELTS-6.5 band score.

Additional information on TOEFL registration and payment is available at: http://www.toefl.org/toefl/tflfees.html. Additional information on the IELTS test is available at http://www.ielts.org/.

Additional information on SAT registration and payment is available at: http://www.collegeboard.com. For the TOEFL, SAT, and IELTS, be sure to request an official score report for Carlow by using the Carlow school code: 2421. Please note: this requirement is not negotiable, as all applicants to the University must submit official test scores. No application will be considered without results from at least one of these two tests.

If applying for a graduate program you must also submit the following documents:

- Personal essay
- Current resume/vitae
- Two graduate reference letter/forms. Recommendations forms must come directly from the individual serving as your reference via direct email or in a sealed envelope through regular mail.

If you are admitted to the University, you will need to submit the following financial documents before entering. They are not necessary for an admissions decision:

- Notarized Affidavit of Support Form which can be obtained at www.carlow.edu. Each affidavit must be submitted in the original; copies will not be accepted.
- Official bank or employer's statement. All Affidavits of Support must be accompanied by official/ notarized bank or employer's statement and must show evidence that the amount pledged is available. If a student has more than one sponsor, each sponsor must submit a Carlow notarized affidavit and accompanying statement. Bank statements should be no older than six months.

Once you arrive in the U.S., you must report to the University and submit the following documents:

- Copy of your Visa
- Copy of I-94 (both front and back)


## FINANCIAL AID

At Carlow University, our goal is to make financial aid available to students who would otherwise be unable to attend college. The Financial Aid Office administers federal, state, and institutional aid programs and offers assistance to students and parents with questions about the financial aid process. All students are encouraged to utilize www.carlow.edu and myPortal for current financial aid information and to access all forms necessary to apply for financial aid.

## HOW FINANCIAL AID IS AWARDED

All financial aid programs, excluding scholarships and some loan programs, base eligibility on financial need. Financial need is defined as the difference between the Cost of Attendance and the Expected Family Contribution. The Cost of Attendance is comprised of actual tuition and fees, plus room and board, and an allowance for books and supplies, transportation, and living expenses. Expected Family Contribution is determined by a standard need analysis formula called Federal Methodology. Factors such as taxable and non-taxable income, assets, and household information are all considered in this formula. Financial aid is awarded annually for one academic year. Continuation of an award requires an annual review of the applicant's financial need, based on that year's need analysis formula and academic progress, which is reviewed each semester.

## SPECIAL CIRCUMSTANCES

Individual circumstances that could affect the Expected Family Contribution include unemployment, change in job status, or unusual medical expenses. When these situations occur, they should be communicated to the Financial Aid Office via a Special Conditions Form, which is available at
http://www.carlow.edu/Financial_Aid_Forms.aspx

## APPLICATION PROCESS

A high school graduate or college transfer student who has completed an application for admission to Carlow University and who will be matriculated (degree seeking) for at least six credits a semester (half-time status) may apply for financial aid by completing the Free Application for Federal Student at www.fafsa.gov. The FAFSA is for students who are U.S. citizens or permanent residents. First time applicants who are Pennsylvania residents will be contacted by PHEAA, the Pennsylvania Higher Education Assistance Agency, to complete a State Grant Status Notice for state grant consideration. All new students who wish to be considered for financial assistance should file the FAFSA by March 15, which is Carlow's priority deadline. Applications received after this date will be processed as funds are available. Non-Pennsylvania residents must complete the FAFSA and any additional application their home state may require for state grant consideration. The FAFSA filing deadline for the PA State Grant is May 1.

## VERIFICATION

About one-third of all FAFSA filers are selected for verification, a process in which the Financial Aid Office must verify the information reported on the FAFSA. Students selected for verification must submit requested documentation according to the verification flag associated with the FAFSA results. The most common type of verification requires that the student (and parent, if dependent) submit the Verification Worksheet and copies of IRS Tax Return Transcripts. When possible, use the IRS Data Retrieval Tool on the FAFSA. Tax transcripts will not be requested from students and parents who successfully transferred income information from the IRS to the FAFSA using the IRS Data Retrieval Tool. The Financial Aid Office notifies students via Carlow email if documents are needed to complete verification. Students may also access information about missing documents from Web Advisor.

## OUTSIDE SCHOLARSHIPS

Students are encouraged to investigate private sources of financial aid. It is the responsibility of the student to notify the Financial Aid Office of any scholarship or grant received through outside sources.

## FEDERAL FINANCIAL AID

Pell Grant: Pell Grant is a federal need-based grant awarded to undergraduates seeking their first bachelor's degree. The maximum Pell Grant for the 2015-2016 academic year is $\$ 5,775$. The lifetime limit on Pell is the equivalent of twelve full-time semesters. Pell received for enrollment at other institutions before enrolling at Carlow University is taken into account when determining remaining eligibility.

Federal Supplemental Education Opportunity (FSEOG): A federal need-based grant for undergraduates seeking their first bachelor's degree. Priority is given to students with Pell Grant eligibility who submit the FAFSA by the priority filing date.

Federal Perkins Loan: Perkins is a low-interest loan awarded by the Financial Aid Office based on FAFSA results. Funding is limited. Currently at 5 percent interest, the loan is repaid starting nine months after the student graduates, leaves school, or drops below half-time status. Perkins is a federal loan program administered by Carlow University in accordance with guidelines established by the U.S. Department of Education.

Federal Direct Loan Program: The Federal Direct Loan Program consists of the Federal Direct Student Loan and Federal Direct Parent PLUS Loan.

The Federal Direct Student Loan Program is available to degreeseeking students who are enrolled at least half time, which is a minimum of six credits per semester for undergraduates. The Subsidized Loan is available to students who demonstrate financial need. During in-school and deferment periods, the interest is paid by the U.S. Department of Education. The interest rate is 4.66 percent. First-time borrowers must complete Entrance Counseling and the Master Promissory Note at www.studentloans.gov
The Unsubsidized Loan is available to students without demonstrated financial need. The borrower is responsible for the interest that accrues during in-school and deferment periods. The interest rate on Unsubsidized Direct Loans is 4.66 percent. Repayment on the principal begins six months after leaving school or dropping below half-time.
Annual maximum combined eligibility for the Federal Direct Student Loan for dependent students is $\$ 5,500$ for freshmen, $\$ 6,500$ for sophomores, and $\$ 7,500$ for juniors and seniors.
Annual maximum combined eligibility for the Federal Direct Student Loan for independent students and dependent students whose parents were denied PLUS loan is $\$ 9,500$ for freshmen, $\$ 10,500$ for sophomores, and $\$ 12,500$ for juniors and seniors.

The aggregate limit for a dependent undergraduate is $\$ 31,000$ with not more than $\$ 23,000$ in Subsidized Loan. The aggregate limit for an independent student and dependent student whose parent is denied PLUS loan is $\$ 57,500$ with not more than $\$ 23,000$ in Subsidized Loan.

Federal Direct Parent PLUS Loans: Federal Direct Parent PLUS Loans are for parents with favorable credit histories who want to borrow money to help pay for the education expenses of their dependent children. The maximum a parent may borrow in an academic year is the difference between the student's Cost of Attendance and financial aid. The interest rate on the PLUS Loan is 7.21 percent. Generally, repayment begins 60 days after the final loan disbursement in an academic year. Interest begins to accumulate at the time the first disbursement is made. Dependent students whose parents are denied the PLUS Loan due to adverse credit are eligible to receive additional Unsubsidized Loans. Freshmen and sophomores are eligible for $\$ 4,000$ and juniors and seniors $\$ 5,000$.

To apply for the PLUS Loan, the parent borrower must complete a PLUS application at www.studentloan.gov. If approved based on credit, the parent must then complete the promissory note, also at www.studentloan.gov.

Federal Work Study (FWS): This need-based financial aid program provides jobs for students to help pay their educational expenses. Students are paid monthly, at least at the current federal minimum wage, and are encouraged to put their earnings toward their account balance.
Nursing Loan: Funded by the U.S. Department of Health and Human Services, this program is intended to help students achieve careers in nursing. Currently at 5 percent interest, this loan is awarded
to nursing students enrolled at least halftime who demonstrate financial need. The loan is repaid starting nine months after the student graduates, leaves school, drops below half time, or changes from nursing to another major.

## STATE FINANCIAL AID PROGRAMS

Pennsylvania State Grant: The Pennsylvania Higher Education Assistance Agency (PHEAA) offers need-based grants to undergraduates seeking their first bachelor's degree who are Pennsylvania residents and enrolled at least half time. Eligibility is limited to eight full-time semesters. Students whose enrollment is limited to one eight-week CAP session in a semester are not eligible for Pennsylvania state grant in that semester. In general, students taking online classes are not eligible for Pennsylvania state grant in a semester in which their online classes exceed classroom instruction by more than fifty percent. However, Carlow participates in the PHEAA Distance Education Pilot Program. Contact the Financial Aid Office for more information. For more information about the Pennsylvania State Grant Program and other grant and scholarship programs administered by PHEAA, please visit www.pheaa.org or call 1.800.692.7392. The FAFSA deadline for PA State Grant is May 1.

Other State Grant Programs: Students who are not Pennsylvania residents should contact the agency in their home state to see if they are eligible for assistance while attending a school in Pennsylvania.

## AWARD LETTERS

Students who apply for financial aid will receive an official award letter that shows financial aid for the entire academic year, fall and spring. New students will receive paper award letters through regular mail. Returning students will be notified via Carlow email when their award letter is available on WebAdvisor. All students must officially accept their financial aid by completing a Reply Form either on paper or online.

## INSTITUTIONAL FINANCIAL AID

Carlow offers merit and athletic scholarships ranging from $\$ 1,000$ to $\$ 18,000$ per academic year, which are not based on financial need and are awarded to eligible traditional undergraduate students as defined by the Office of Admission (unless otherwise noted) enrolled in degree-seeking programs. Carlow also offers institutional needbased grants.

## PRIVATE ALTERNATIVE LOANS

There are many private loans that may be used for educational expenses. A list of loans used most frequently by Carlow students can be found at www.elmstreet.com, but students are free to use any lender they choose. Interest rates and terms of the loans vary by lender and the borrower's credit history.

## RETURN OF TITLE IV FUNDS

The Financial Aid Office recalculates federal* financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing at least 60 percent of a semester. Federal financial aid is returned to the federal government based on the percent of unearned aid using the following formula:

## Step One:

Percent earned = Number of days completed up to the withdrawal date** / total days in the semester

## Step Two:

Aid to be returned $=(100$ percent-percent earned in Step 1) $x$ the amount of federal aid disbursed or to be disbursed toward institutional charges

* Federal financial aid includes the Federal Pell Grant, SEOG Grant, Perkins Loan, Federal Stafford Loan, and PLUS Loan.
** Withdrawal date is defined as the actual date the student contacted the Registrar to begin the institution's withdrawal process, the student's last date of recorded attendance, or the midpoint of the semester for a student who leaves without notifying the institution.

The school must return unearned aid by repaying funds to the following sources in the following order:

- Unsubsidized Federal Direct Loan
- Subsidized Federal Direct Loan
- Perkins Loan
- Federal Direct Parent Plus Loan
- Pell Grant
- FSEOG
- Other Title IV programs

When aid is returned, the student may owe a balance to the University. If so, the student should contact the Office of Student Accounts to make arrangements to pay the balance due.
The Federal Refund Calculations only apply if the student is withdrawing from all classes. However, if a student makes changes in registration that result in changes to tuition and fee amounts, the Financial Aid Office will recalculate the Cost of Attendance and may need to change the original amount of aid awarded.

IMPORTANT: BEFORE WITHDRAWING FROM ALL OR SOME CLASSES, STUDENTS SHOULD CONTACT FINANCIAL AID/STUDENT ACCOUNTS TO FIND OUT THE FINANCIAL RAMIFICATIONS. STUDENTS COVERED BY FINANCIAL AID MAY FIND THEMSELVES WITH AN OUTSTANDING BALANCE BECAUSE FUNDS HAD TO BE RETURNED TO THE FEDERAL GOVERNMENT.

## SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID

The United States Department of Education requires that institutions of higher education set standards to measure satisfactory academic progress for students who are receiving Title IV (Federal) financial aid. Carlow uses the same standards to measure academic progress for institutional, need-based grants. The Pennsylvania Higher Education Assistance Agency (PHEAA) has its own academic progress policy for Pennsylvania state grant recipients.

Satisfactory Progress: Satisfactory progress is defined as a cumulative GPA of at least 2.0 and enough cumulative credits earned to equal at least 67 percent of cumulative credits attempted.

Students must be able to complete their program of study within 150 percent of the credits required, so for a 120-credit bachelor's degree program, a first-time student must be able to earn the degree within 180 credits attempted in order to remain eligible for Title IV aid.

## PROCEDURE

The Financial Aid Office reviews academic progress after each semester. Transcripts from the Office of the Registrar are reviewed. The review includes an examination of the student's cumulative GPA, the ratio of credits earned versus credits attempted, and the amount of time taken to complete the program of study.

Warning: If a student's cumulative GPA has fallen below 2.0, or the student has earned less than 67 percent of his or her cumulative credits attempted, or both, the student will be placed on financial aid warning for the following semester. Students are notified in writing from the Financial Aid Office of their warning status. During this warning period, students must work to raise their cumulative GPA to at least a 2.0 and their cumulative credits earned to at least 67 percent of cumulative credits attempted. Students are strongly encouraged to utilize the tutoring opportunities in the University's Center for Academic Achievement, particularly during warning periods. Students may continue to receive financial aid during warning periods as long as all other eligibility criteria are met.

Suspension: At the end of the warning period, the Financial Aid Office will review the student's academic transcript. If the student has not met the minimum criteria for GPA and credits earned, eligibility for federal and institutional financial aid will be suspended. Students are notified in writing from the Financial Aid Office of their suspension status. The letter will include information about how to appeal due to extenuating circumstances. A student's financial aid will not be suspended without a period of warning. Students whose financial aid eligibility is suspended may regain eligibility once they meet the requirements for satisfactory academic progress.

Appeal Process: If the student's financial aid eligibility is suspended, the student may appeal for one additional semester of eligibility, as long as there are extenuating circumstances and an academic plan has been established with the student's advisor. Extenuating
circumstances may be directly related to the student's academic experience or to circumstances of a more personal nature, such as injury, illness, or trauma. All appeals are reviewed by the Academic Progress Committee. When an appeal is approved, the student will be placed on financial aid probation for the next period of enrollment and will be eligible for financial aid, as long as all other eligibility criteria are met.

The Academic Progress Appeal Form for Financial Aid is located on myPortal under Student HUB and Financial Aid. Upon completion, the form should be faxed, mailed, or emailed to the Financial Aid Office to the attention of the Director of Financial Aid. All decisions rendered by the committee are final.

Scholarship renewal is contingent on GPA. Appeals are not considered for students who lose scholarship eligibility because their GPA is below required minimum.

Transfer Students: Credit hours accepted at Carlow are counted as both attempted and completed hours.

Withdrawals: A WD is assigned if a student officially withdraws from a particular course prior to the final date to withdraw in a given semester, according to the academic calendar published in the Carlow Course Schedule and online at www.carlow.edu/registrar/ registrar.html. A WD on a transcript influences the ratio of cumulative credits earned versus credits attempted. Withdrawals also impact the amount of time taken to complete the program of study.

Repeated Courses: A student wishing to retake a course in which they received a D or F grade can do so only by repeating the same course at Carlow University. Both grades for a repeated course are recorded on the transcript. The higher grade is used in the
calculation of the cumulative GPA. A student who repeats a course one time may still be considered for financial aid for that course. A student who repeats a course for which credits were earned will not earn additional credits for the repeated course.

Academic Forgiveness: When a student is granted Academic Forgiveness by the provost, the actual earned credits and earned grade are what are taken into account for the purpose of measuring academic progress for financial aid.

Pennsylvania State Grants: For each academic year during which a Pennsylvania state grant is received, a student must successfully complete the minimum number of credits appropriate to the student's enrollment status during the semester(s) for which state grant aid was received. In an academic year, students receiving two full-time semesters of state grant aid must earn at least 24 credits, and students receiving two part-time semesters of state grant aid must earn at least 12 credits. A student who has not maintained satisfactory academic progress for state grant aid may enroll in summer courses (without state grant aid) to make up the necessary credits.

Academic Levels: The following guidelines are used to determine the academic level for undergraduate students:
Freshman—a student who has completed 0 to 23 credits Sophomore—a student who has completed 24 to 53 credits Junior-a student who has completed 54 to 87 credits Senior-a student who has completed at least 88 credits

## ACADEMIC INFORMATION

## ACADEMIC ADVISING

All students are assigned an academic advisor when they are registered for classes in a program. Students are expected to meet with their advisor prior to and throughout their program of study. The academic advisor is responsible for helping the student make informed choices about course selection, but it is the student's responsibility to ensure that courses are appropriately selected to meet all requirements of the program and University in order to satisfy graduation requirements.

Students are matched to academic advisors by the department chair/ program director. If a change is necessary, the program director/ chair will assign a different academic advisor in consultation with the student and faculty.

## ORIENTATION

Orientation programs are mandatory for new students. The orientation program is the first step to a successful Carlow experience. Students will learn valuable information about their IDs, parking, and technology at Carlow; they will also have the opportunity to meet and socialize with one another and with the members of the faculty, staff, and administration. For more information about orientation, students should visit the Carlow website.

## ACADEMIC OPPORTUNITIES

## HONOR AND SERVICE SOCIETIES

Outstanding achievement in the general academic program entitles students to apply for membership in national honor societies. Benefits vary by the society but, in general, membership in a national honor society can also provide access to educational enrichment activities, career planning, and career advancement opportunities.

Chapters of honor and service societies on the Carlow University campus are:

Alpha Sigma Lambda: A scholastic and fraternal organization, Alpha Sigma Lambda is a national honor society for nontraditional adult students. Its goal is to recognize the special achievements of adults who accomplish academic excellence while facing competing interests of home and work. Alpha Sigma Lambda is dedicated to the advancement of scholarship and recognizes scholastic achievement in an adult student's career. Inductees must have a GPA of 3.5 in order to be invited for membership. Through programming and camaraderie, the society encourages its members to continue toward and to earn their degrees.

Beta Beta Beta: This national professional society for students of the biological sciences offers experiences that enrich and extend the primary requirements for the biology major.

Kappa Delta Epsilon, Kappa Beta Chapter: This honorary professional education society renders service to the campus and community and promotes the professional growth of its members. Qualifications for membership are demonstrated scholastic achievement and desire to provide service to the campus community and the community at large.

Psi Chi: An international psychology honors society that encourages scholastic excellence and to promotes the science of psychology. Membership provides networking, funding, and educational opportunities, and is open to psychology majors, minors, and graduate students who meet the minimum academic requirements established by the Carlow University chapter of Psi Chi.

Sigma Theta Tau, Eta Epsilon Chapter: This international nursing honor society recognizes superior achievement and the development of leadership qualities. It also fosters high professional standards, encourages creative work, and strengthens commitment to the ideals and purposes of the profession. Qualifications for membership include demonstrated superior scholastic achievement, evidence of professional leadership potential, and marked achievement in the field of nursing.

## Student Affiliates of the American Chemical Society: This

professional organization for science students stimulates interest in scientific research and promotes intellectual life.

## HONORS AND AWARDS FOR GRADUATING SENIORS

Eligibility for graduation with honors is computed cumulatively. Students are eligible for graduation with honors under the following conditions:

- Cumulative Grade Point Average (GPA) of:
3.90 to 4.0 -summa cum laude
3.70 to 3.89 -magna cum laude
3.50 to 3.69 -cum laude

Students who have received academic forgiveness may be eligible to graduate with honors limited to the cum laude designation only.

Joseph G. Smith Memorial Award: In honor of the late Joseph G. Smith, former chairman of the Board of Trustees, this highest Carlow award is given to a senior in recognition of academic distinction and service to the University and to the community.

The Honors Program invites accomplished and motivated students to participate in a series of academic experiences that will challenge their abilities and help them to prepare for professions or graduate study. Through this program, students experience expanded leadership opportunities and increased opportunities to interact with faculty and to shape their own education experience. See Honors Program on page 40.

## STUDY ABROAD

Study abroad provides students with a hands-on, international experience that enhances their academic career at Carlow University. Studying abroad enriches a student's global perspective and makes for a well-rounded, highly competitive college graduate. Furthermore, study abroad allows for individual growth, independence, and expanded views and ways of thinking about our increasingly global world.

Carlow students can study abroad for as long as an academic year to as short as a two-week long program-it truly depends on what is a good fit for the individual student's academic plan and goals. Carlow students study all over the world from England to Russia to Tanzania to Thailand!

Through the Center for Global Learning (CGL), Carlow students may apply for a program sponsored by Carlow University or by another accredited college or university. The following are Carlow-sponsored programs overseas:

- Carlow in Italy: Carlow students with a GPA of 3.0 or above may apply to study for a semester on the campus of the American University of Rome (AUR). Accepted students will register as full-time students at Carlow and pay the regular Day Program tuition and fees. Housing fees are set by AUR and included on the Carlow Invoice. All state and federal financial aid awarded for the semester in question will be applied. For a limited number of students, Carlow financial aid will be applied.
- Carlow in Ireland: The University has a cooperative agreement with its sister school and namesake in Carlow, Ireland. Carlow students with a GPA of 2.5 or above may apply to study for a semester at Carlow College. Accepted students will register as full-time students at Carlow and pay the regular Day Program tuition and fees. All state and federal financial aid awarded for the semester in question will be applied. For a limited number of students, Carlow financial aid will be applied. In conjunction with Carlow, Ireland, graduate classes in education, the MBA program, and the MFA program have been designed to include short educational visits to Ireland.

The CGL will assist all interested students in finding the program that best suits their personal and professional goals and in making academic and financial arrangements. Please visit the CGL Study Abroad website at www.carlow.edu/studyabroad.

See Study Abroad course descriptions on page 42.

## INTERNSHIPS AND FIELD PLACEMENT

Off-campus fieldwork is a regular part of the curriculum. Students in nursing, education, perfusion technology, communication, accounting, forensic accounting, business management, human resource management and technology, management in health services, psychology, sociology, criminal justice, political science, and social work are required to do field work as an integral part of their program. Other departments and interdisciplinary programs also offer internship experience.

## ACADEMIC RESOURCES

## OFFICE OF CAREER DEVELOPMENT

This office supports students in making a successful transition from education to employment or advanced degrees through career coaching, internship opportunities, job search skills training, and graduate school planning. Services include one-on-one appointments, group workshops, career programs, and online resources that are available to current students and alumni, within two years of graduation.

The Office of Career Development utilizes a web-based system to publicize internships and employment opportunities. Personal job or internship search assistance is provided for identifying employment opportunities, developing a resume, and preparing for interviews. Students and alumni are also encouraged to participate in on-campus interviews and to attend career programs and job fairs sponsored by Carlow University.

## CENTER FOR ACADEMIC ACHIEVEMENT

The Carlow University Center for Academic Achievement (CAA) provides tutoring and academic support to Carlow students. Professionals and peer tutors in math, science, writing, and learning skills work in collaboration with students in both individual and group settings. Faculty-approved peer tutors, who are also expert students, provide assistance and support classroom learning for a wide range of courses. The CAA's programs are highly flexible. Students may sign up for onetime or ongoing tutoring sessions; informal, as-needed review sessions; and study groups. In these settings, students review course material, practice problem solving, prepare for examinations, and develop general academic skills necessary for success and self-directed, life-long learning.

## INDEPENDENT AND ONLINE LEARNING

Students interested in independent learning online can also consult "CAA Resources" on Blackboard or the CAA myPortal site. The module includes links to resources and tip sheets. Instructional PowerPoint presentations include topics like Becoming a Skilled Researcher and Formatting Your Paper APA Style,APA Essentials, and College Survival Skills.

## GRACE LIBRARY

Grace Library supports collections and services to foster academic excellence and promote the process of self-directed, life-long learning. The library offers more than 58,000 printed volumes and more than 118,000 e-books with particular strengths in early childhood education, theology, literature, and women's studies. Special collections include those in peace studies, African-American studies, and career resources. More than 16,000 electronic and print journals are available.

The library contains more than 1,350 DVDs, streaming videos, and videotapes. Students are issued a library barcode on the back of each student ID that enables them to borrow an unlimited number of items from the library. Grace Library offers a wide array of services to make the research process easier such as:

Reference Help: Librarians are available during most library hours to give students one-on-one help. Also, students can ask questions online via the "Ask a Librarian" service available on the library's website at www.carlow.edu/library or call 412.578 .6142 to speak to a librarian.

Research Materials: Students can access a tremendous amount of research material such as full text journal articles, encyclopedia articles, and statistics from the library website. Also available on the website is the library's online catalog through which students can search for books and DVDs owned by the library, renew and place holds on books, and see a listing of materials placed on reserve. Research guides, library hours, and policies are also found at www.carlow.edu/library

In-house Resources: The library owns a rich collection of print materials available for student research, including over 12,000 reference volumes such as subject specific encyclopedias and dictionaries. For more advanced research, librarians will assist researchers with extensive online literature searches.

Borrowing from Other Libraries: Grace Library has made arrangements for Carlow students to borrow and use materials from other academic libraries by using E-Z Borrow (for books) and RAPID ILL (for journal articles). Interlibrary Loan from more than 9,100 libraries around the United States is available for hard to find materials. Further information can be found on the Grace Library website located at www.carlow.edu/library

The Carlow Archives and the International Poetry Forum Archives: Carlow's Archives and the International Poetry Forum Archives are part of Library Services. The Carlow Archives contain materials pertaining to the history of the University. The International Poetry Forum Archives contain poetry readings and other memorabilia which are of particular interest to creative writing students. Students are encouraged to learn more about the archives by calling 412.578.6139.

Comfortable, Relaxing Study Areas: The library offers comfortable chairs for reading and relaxing; small, quiet study rooms; and numerous areas for group meetings.

## DR. TOM HOPKINS COMMUNICATION LABORATORY

The Dr. Tom Hopkins Communication Laboratory is a state-of-theart, fully digitized communication lab. It contains three interview rooms, two presentation rooms, a conference room, and a central control room. All the rooms are equipped with the latest technology that allows students to capture digital audio and video recordings. Additionally, there is projection technology which enables students to review, and evaluate examples of their oral communication. Using these recordings, faculty and peer advisors can assist students in improving their speaking and presentation skills. The lab is open to all graduate and undergraduate students who want to use this technology to monitor and enhance their communication skills.

## IRANSCRIPT REQUESTS

All requests for official transcripts should be submitted in writing to the Office of the Registrar. A student's signature is required to release any transcript. A fee is charged for each transcript. A transcript will not be issued unless all financial obligations owed to the University have been fulfilled. Current students may view their own academic records online at https://webadvisor.carlow.edu

## RESERVE OFFICER TRAINING CORPS (ROTC)

Air Force and Army Reserve Officer Training Corps (ROTC) programs are offered through cross-registration at the University of Pittsburgh. Students in the Army and Air Force programs have the option of completing a two- or a four-year program. Completion of the Air Force program leads to a commission as a second lieutenant in the U.S. Air Force. Completion of the Army ROTC program leads to a commission as a second lieutenant in the U.S. Army, the U.S. Army National Guard, or the U.S. Army Reserve.

Carlow students can enroll in the Navy ROTC through Carnegie Mellon University. Completion of the Navy ROTC program leads to a commission as an officer in the U.S. Navy or U.S. Marine Corps.

Interested students can enroll through Carlow's Office of the

Registrar or find out more information at the following websites:

- Army: www.rotc.pitt.edu
- Air Force: www.afrotc.pitt.edu
- Navy: www.cmu.edu/nrotc


## STUDENT EVALUATION

The methods that faculty use to evaluate student achievement vary according to the types of learning experiences. Written examinations are a common means of evaluation, but research papers, essays, interviews, classroom interaction, media presentations, observation, and clinical and field experience are also used.

## ACADEMIC CALENDAR

The academic calendar is published annually. Carlow follows the semester system, although some programs are divided into shorter sessions within the semester. (See Accelerated Course Calendar in the section below.) Most academic related actions are carried out on a semester basis, such as academic standing decisions, the Dean's List, and determination for graduation.

## ACCELERATED COURSE CALENDAR

Carlow Accelerated Program (CAP) classes generally meet for eight weeks. These courses typically meet in the evening and can occur in CAP I through VI sections. In addition to CAP sections, some courses meet in the Weekend College (WEC) format. When an accelerated course is scheduled to meet at a time the University is closed, faculty may schedule a make-up class, provide an out of class assignment or hold an online session. Classes will not be conducted on days when the institution is officially closed. As alternatives to a make-up day, a faculty person may decide to give the class a substantive assignment or hold an online class session instead of using the make-up day. Faculty who teach an accelerated- format class that should meet on an official holiday will publish in their syllabus which of these plans will be in place for that course.

## ACADEMIC FORGIVENESS

Any student who matriculated at Carlow University and withdrew at least five years prior to seeking re-admission* has the option of requesting academic forgiveness through the Office of the Provost and Vice President for Academic Affairs. A student seeking academic forgiveness shall request consideration at the time of readmission. Academic forgiveness means all previous courses the student has passed will remain on the permanent record, but none will be computed into the new cumulative GPA. Credit earned prior to academic forgiveness for courses graded $A, B, C$, or $D$ will be counted toward degree requirements. Previous courses graded F will not be counted toward degree requirements. Please refer to individual departments for specific repeat policies in major and support courses.

When a student is granted academic forgiveness by the Provost, the actual earned credits and earned grades are what are taken into account for the purpose of measuring academic progress for financial aid. To complete the degree the student must earn a minimum of 32 credits after academic forgiveness. To earn graduation honors the student must earn a minimum 3.5 GPA. Honors are limited to the cum laude designation, no matter how high the GPA.
*For additional information regarding re-admission please refer to page 29-Re-Admission Procedure to the University.

## ACADEMIC INTEGRITY POLICY

Carlow University's values and vision are founded in the Sisters of Mercy's mission of cultivating lifelong learners through a learnercentric approach. It is in this tradition that Carlow University aims to educate and challenge students to reach their highest potential; to that end, we guide students along a path of honesty and integrity throughout their intellectual pursuits. Carlow University expects its constituencies to understand the various forms of academic dishonesty and to uphold the highest standards of academic integrity.

## FORMS OF ACADEMIC MISCONDUCT

## Cheating

Any coursework, such as (but not limited to) quizzes, tests, exams (in-class, online, or take-home), homework or other assignments, lab work, presentations, and both creative and scholarly forms of expression such as projects and papers, computer programs, artistic, musical, or any audiovisual or multimedia work, is presumed to represent a student's individual, original work (or the original work of all members of a group, in the case of group assignments). Cheating thus involves completing coursework by providing or receiving inappropriate assistance from a person or reference, or using unauthorized material such as (but not limited to) notes of any form, texts, test banks, wireless devices such as cell phones, tablets, or smart watches, calculators, formulas, or computers, unless otherwise directed or permitted by the course instructor.

## Plagiarism

Plagiarism refers to the unauthorized use of copyrighted material or misrepresentation of someone else's work as one's own in any coursework, such as (but not limited to) quizzes, tests, exams (in-class, online, or take-home), homework or other assignments, lab work, presentations, and both creative and scholarly forms of expression such as projects and papers, computer programs, artistic, musical, or any audiovisual or multimedia work.
Plagiarism can occur in many ways, including:

1) Submitting another's work as one's own.
2) Not properly citing sources, using exact wording without quotations or proper attribution, paraphrasing without proper citation, or improper paraphrasing.
3) Attributing citations to inaccurate or misleading sources.

## Self-Plagiarism

Unless otherwise permitted by the course instructor or the nature of the assignment, each submitted work is presumed to be original. Self-plagiarism thus involves the unauthorized use of one's own work or part of a work, either from the same course or from another course, in more than one assignment.

## Academic Deceit

Academic deceit involves the intentional use of false or altered information or the withholding of information critical to the processes
of the University such as grade changes, course withdrawals, or other academic procedures. Academic deceit also entails providing false information or documentation with the intent to obtain an exemption, extension or exception to assignments, exams, presentations, and other coursework. In addition, academic deceit involves signing other students into classes or on group reports.

## Fabrication of Data

Fabrication of data involves the use of distorted data through either falsification or fabrication, or any sort of forgery or unsanctioned use of documents for research or other coursework.

## Interference with Other Students' Learning or Achievement

The interference with the classroom learning or scholarly products of other students is a violation of academic integrity. Examples include, but are not limited to: sabotaging (including failing to contribute to) group projects or laboratory work, disrupting in-class work including tests and quizzes, altering computer files or online posts, or making educational materials such as equipment or texts unavailable to others.

## Unauthorized Acquisition or Exchange of Coursework

Unauthorized acquisition or exchange of coursework involves not only purchasing, borrowing, stealing, or otherwise obtaining material (such as, but not limited to, exams, test bank questions, papers, projects, assignments, and presentations) with the intent to use or represent part or all of the material as one's own coursework, but also selling, lending, or otherwise offering one's own coursework to others with the intent of allowing the recipient to use or represent part or all of the purchased or borrowed work as one's own. In addition, unauthorized acquisition or exchange of coursework entails obtaining a copy of one's own completed tests and exams (either a physical copy, an electronic image, or a screenshot) without explicit permission from the course instructor.

## Other Forms of Academic Misconduct

Carlow University reserves the right to act upon other actions that a reasonable person would consider academic dishonesty that may not be listed specifically above.

## VIOLATIONS OF ACADEMIC INTEGRITY

When academic misconduct is suspected, the faculty should contact the Office of Academic Affairs to inquire about previous academic integrity violations by the student.

If the alleged misconduct is the student's first offense of a similar nature, and the faculty believes the misconduct is minor or the result of an honest mistake, the faculty should contact the student within five business days of discovering the violation to arrange a meeting lthe meeting may be in person or online or via electronic communication) and attempt to resolve the matter with the student directly. The faculty member may impose a sanction at his/her discretion. Also, in the spirit of helping guide the student's learning process, the faculty should refer the student to such resources as the Center for Academic Achievement, as appropriate. Once a resolution
is achieved, the faculty and the student must sign an agreement detailing the misconduct and the sanction imposed to be kept on record at the Office of Academic Affairs. This agreement only kept as a means of tracking and is not meant to become part of a student's permanent academic record. The student may not contest the sanction or appeal to a higher level.

If the faculty and the student are unable to reach a resolution, or if the student denies responsibility for the alleged academic integrity violation, the matter is forwarded to the Academic Integrity Council for a judicial hearing, as described below.

If the alleged misconduct is not the student's first offense of a similar nature, or if the faculty believes the misconduct is serious, blatant, or warrants consideration by a higher authority, the matter is forwarded to the Academic Integrity Council for a judicial hearing, as described below. The Council may collaborate with the faculty to impose further sanctions following the hearing.

## Judicial Hearing Procedure

The faculty will contact the Chair of the Academic Integrity Council at least 72 hours prior to the next regular meeting of the Council in the fall or spring semesters to begin the judicial hearing process. The Chair will then notify Dean of the College that houses the accused student's major(s) and the Office of the Registrar of the pending case. The Academic Integrity Council shall convene a Judicial Hearing Panel for the case at its next regularly scheduled meeting. The faculty and the student are both expected to appear at the hearing and present their evidence in front of all parties in attendance. If the faculty and/or the student is unable to attend the hearing in person, they may present their case in a written statement to be provided to the Chair of the Academic Integrity Council prior to the hearing. Barring any extenuating circumstance, the faculty is expected to attend the meeting or provide a written statement of evidence; otherwise, the case is dismissed. If the student does not attend the meeting and fails to provide a written statement of his/her case, the hearing will continue with the evidence available.

Only members of the Judicial Hearing Panel, the faculty alleging the misconduct, and the accused student may attend the hearing; no other personnel shall be permitted. The faculty and student may be excused from the room during the Panel's deliberation.

During the judicial hearing process, the student may not withdraw from the course. If the matter is not resolved by the final grade due date, an incomplete grade is assigned until the Judicial Hearing Panel rules on the matter. The student will not be conferred a degree or certificate if there are outstanding academic misconduct charges. If the Judicial Hearing Panel finds the student guilty of violating the academic integrity policy, the Panel will have three business days to consult with the faculty alleging misconduct and the program(s)/ department(s) that houses the student's major area of study for a decision on appropriate sanctions. In collaboration with the faculty and the program(s)/department(s), the following grade sanctions may be applied:

- Zero credit on the assignment
student will serve if the accused is a graduate student.
- Failure of the course

For serious cases of academic misconduct, the Panel may recommend that the provost apply the following sanctions:

- Suspension from the University
- Dismissal from the University

In the case of suspension from the University, if the ruling occurs past the course withdrawal date, the suspension will begin at the end of the current semester so that the student will not incur financial aid penalties. If a student is dismissed from the University due to violation of the academic integrity policy, he/she cannot be readmitted to the University in the future.

The Panel's ruling may be appealed, following the procedure described below.

The chair of the Academic Integrity Council will notify the student, the faculty alleging the misconduct, the Dean of the College that houses the student's major(s), and the Office of the Registrar regarding the outcome of the Panel's ruling.

All records of academic integrity violations will be kept permanently in the Office of Academic Affairs.

Cases of academic integrity violation that take place over the summer months shall be directed to the Office of Academic Affairs, which will convene an ad hoc panel consisting of faculty who are available to serve within ten business days from the time the academic integrity violation is reported. The Office of Academic Affairs will also notify the dean of the college that houses the student's major(s) and the Office of the Registrar regarding pending cases and the outcome of the ad hoc panel's ruling.

## Composition of the Academic Integrity Council

The Academic Integrity Council is a standing committee that is available to meet once per month during the fall and spring semesters. This committee shall consist of three faculty members from each college (nine total), serving staggering three-year terms, along with three undergraduate and three graduate students. The Academic Integrity Council shall work with the Office of Student Affairs to identify eligible students to serve.

Judicial Hearing Panels shall be convened as needed to take place during the Council's scheduled meeting time. Each Panel shall consist of five members, as follows:

- Three faculty members from the Council lone from each College).
- One member from the accused student's major discipline. This member may be the dean, chair, or program director, or a faculty designee from the major.
- One student. An undergraduate student will serve if the accused is an undergraduate student, while a graduate

In addition, one staff member may serve as a consultant if such expertise is deemed necessary.

Members serving on a Judicial Hearing Panel must not have taught the accused student in the past or have personal ties to the student. In the case of small departments where no faculty is eligible to serve under this condition, the Dean or the Chair of the department may seek a representative from a closely related department.

## Appeals

Following the Judicial Hearing Panel's ruling, both the faculty alleging misconduct and the accused student may appeal the decision in writing detailing the grounds of the appeal. Appeals must be submitted to the vice president of Academic Affairs within ten business days of the Panel's ruling. The decision of the vice president of Academic Affairs is final and a written record of the decision shall be kept on file. Should the vice president of Academic Affairs reverse the ruling of the Panel, he/she shall explain the rationale for the reversal, in writing, to the Panel.

## STUDENT CODE OF CONDUCT

Students of Carlow University are expected to conduct themselves as responsible individuals who respect the rights and dignity of others. University rules and regulations are intended to protect the rights of each member of the University community. Students are expected to act reasonably, responsibly, and with civility while on campus and at University sponsored events off campus. See the Carlow University Student Handbook for more information.

## ACADEMIC GRIEVANCE PROCEDURE

Formal grievance procedures have been established to provide students with a means to express concerns regarding the application of academic policies, procedures, practices, rules, or regulations of the University, and a method by which concerns can be resolved. The evaluation/grade for individual student work may not be grieved. However, the process or procedure used for arriving at the grade may be grieved. The student is encouraged initially to discuss the concern informally with the faculty member and/or department/program chair.

Steps to address a concern:
1.) If a student has an academic concern she/he should present the situation to the faculty member in writing/email. The faculty member will arrange an appointment as soon as possible. The faculty member will respond to the concern presented during this initial appointment within seven days of the appointment. Parties should retain a written record of this discussion. Most matters can be settled by frank discussion of the facts.
2.) Should the concern remain unresolved, the student will discuss the matter with the department chair or program director and determine if a resolution can be mutually agreed or if a grievance process is required. This will be completed within five days of response from Step 1. In order for all facts to be carefully re-examined and evaluated, the department chair will follow these procedures:
a. Discuss the situation with the faculty member(s)
b. Arrange to meet with the student and involved faculty together to arrive at resolutions to the situation
c. Retain written notes from each intervention
3.) Should the concern remain unresolved with the department chair or program director, or if the specific concern involves the department chair, the student will take the concern to the appropriate dean. The student filing the grievance must have completed Step 1 and have documentation of the discussion. The appropriate dean will then follow Steps 2 a and b. There should be a written record of each meeting and its outcome.
4.) If the grievance remains unresolved at this level and the student wishes to pursue it further, the dean will begin the process of setting up the grievance committee as described in this step. The committee will consist of five members: two student and three faculty members. One faculty member will be elected as chair of the committee and will vote only to break a tie. Student members will be drawn from the pool of undergraduate students when a grievance is filed by a undergraduate student. Faculty members will be drawn from other undergraduate departments. The student and faculty members may each request the removal of any one member of the pool of eligible members.
5.) Both parties will be informed of the status or resolution of the grievance at each step of the process. If either party remains unsatisfied with the decision of the committee, the dean will notify the provost that there is dissatisfaction with the decision. The provost shall make a final determination.

## ACADEMIC STANDING

Carlow University requires that students maintain satisfactory academic progress while attending the institution. In order to maintain satisfactory academic progress, a student must have a cumulative GPA of at least 2.0 and earn at least $67 \%$ of cumulative credits attempted.

## PROCEDURE

The Academic Progress Committee reviews academic progress after each semester. Transcripts from the Office of the Registrar are reviewed. The review includes an examination of the student's cumulative GPA and the percentage of credits earned versus credits attempted.

Warning: If a student's cumulative GPA has fallen below 2.0, or the student has earned less than 67 percent of his or her cumulative credits attempted, or both, the student will be placed on academic warning for the following semester. Students are notified in writing of their warning status. During this warning period, students must work to raise their cumulative GPA to at least a 2.0 and their cumulative credits earned to at least 67 percent of cumulative credits attempted.

Dismissal: At the end of the warning period, the student's academic transcript is reviewed. If the student has not met the minimum criteria for GPA and credits earned, the student is dismissed from Carlow University for one year. Students are notified in writing of their dismissal status. A student may appeal his or her dismissal.

## ACADEMIC STANDING APPEAL PROCESS

If a student has been dismissed from the University, the student may appeal to return for one additional semester. If the minimum criteria for GPA and credits earned is not mathematically possible to achieve in one semester, the student may be given permission to continue to take classes so long as an academic plan for improvement is in place and the student meets all guidelines. All appeals are reviewed by the Academic Progress Committee. If the appeal is approved, the student will be placed on academic probation and will be permitted to take classes. If the appeal is denied, the student's dismissal stands, and s/ he is dismissed from the University for one year.

## READMISSION AFTER A DISMISSAL

If a student is dismissed from the University, the student may apply for readmission after one year, including the summer terms. For example, if a student is dismissed in the fall 2015 semester, $\mathrm{s} / \mathrm{he}$ must sit out the spring, summer, and fall 2016 semesters and can return, if accepted, for the following spring semester. The student must reapply to Carlow University through the Admissions office and select "Readmit" on the admissions application. Admissions must notify the undergraduate dean of their intent to reapply. It should be noted that a student who has been dismissed from the BSN program is not eligible for readmission to the BSN program. In addition to the application, the procedure for consideration for readmission will include, but will not be limited to: a personal statement from the student that addresses the issues that lead to the original dismissal and how the obstacles to the student's academic progression have been remedied and an updated resume. The required statement and resume should be submitted with the reapplication. If a dismissed student is readmitted to the University, s/he will re-enter on academic probation.

Due to changing admission and curriculum requirements, the University reserves the right to re-evaluate all academic courses, whether completed at Carlow or elsewhere, to determine what will be credited toward the student's degree and to determine a new plan of study. A student who is dismissed twice is not eligible for readmission.

## LEARNING ASSESSMENT AT CARLOW

A Carlow degree represents a commitment to our students-a commitment that they will be given the opportunity to learn and be able to demonstrate the skills, knowledge and competencies that are necessary to enter into a career, a community of practice, or higher levels of graduate study. One of the ways we honor this commitment is through the practice of learning assessment. By engaging in learning assessment processes, we take steps to ensure our students achieve the learning goals represented by their degree.
Through our learning assessment efforts, we seek to provide truthful and accurate answers to the following questions:

- What goals do we have for students with respect to the knowledge, competencies, and skills they should develop or master to be able to enter into a career, a community of practice, or higher levels of graduate study?
- What intentional steps do we take to achieve these goals?
- How successful are our students in achieving these goals? That is, what are the actual outcomes?
- How do we improve student learning when the information obtained through our efforts indicates students' progress in achieving these goals is not sufficient?

In Characteristics of Excellence in Higher Education (2009), the Middle States Commission on Higher Education observes that assessment has the student as its primary focus, functions to help students improve their learning, enhances quality, and leads to continuous improvements in academic programs.

As a member of the Middle States Association, Carlow University embraces these principles as integral to its own framework for assessment. In fact, the improvement of teaching and learning is the framework's primary goal.

## CARLOW'S LEARNING ASSESSMENT FRAMEWORK

Based on best practices in the field of learning assessment, we have established a common set of expectations for the development and assessment of student learning outcomes. Each program of study is responsible for maintaining a sustainable assessment process. In addition, the university shares a collective responsibility to maintain a sustainable assessment plan for each of the undergraduate core learning outcomes. Specifically, a sustainable assessment plan in Carlow's learning assessment framework includes the following elements:
1.) Clearly Articulated Student Learning Outcomes To ensure learning, a program must first define goals in order to intentionally work toward those goals. With this in mind, each Program of Study defines five to seven program-level student learning outcomes. These outcomes are statements about what a learner should be able to do after he or she has completed the program of study. At the end of each academic year, departments and programs of study review their outcome results and use the information to determine action steps that will improve, bolster and better assure student learning.
2.) Defined Measures for Success

Learning outcome statements specify student learning behaviors that are observable, measurable and able to be demonstrated. Based on all of this, each program of study identifies opportunities where students apply and demonstrate their learning outcomes. These can include exams, papers, presentations, projects, and other assignments. After identifying these demonstration opportunities, programs of study establish standards of quality, i.e., "criteria for success", that they will use to evaluate the learning outcomes and ensure they meet our expectations and prepare students for future success. Wherever necessary, rubrics are developed to clearly explain the criteria used to evaluate outcomes.

## 3.) Collection and Analysis of Data

Upon conducting assessments of each learning outcome, programs of study and the Carlow Compass Curriculum Steering Committee collect and analyze the resulting data. This analysis includes evaluation of the achievement of each outcome and thus leads to identification of best practices or areas in which student learning can be improved.

## 4.) Action Plans for the Improvement of Student Learning

Where data collected indicate unsatisfactory progress in the achievement of learning outcomes, faculty will identify tangible actions that will be taken to improve student learning. The efficacy of these actions is then evaluated through future assessments.

It should be noted that while this framework provides clear guidelines for how each program of study carries out assessment, it leaves great flexibility to faculty, departments, and programs in determining and implementing the best practices for evaluating their students' achievement. There are several programs at Carlow University that are programatically accredited, including nursing programs (CCNE), the Counseling Psychology Doctoral Program (APA), and the Social Work program (CSWE). For these programs, external agencies often have their own requirements regarding assessment and these programs may adapt the Carlow framework to conduct assessment of student learning in ways that align with those requirements.

## ASSESSMENT REPORTS AND ACTIVITIES

Each program produces an assessment report each year that includes the following:

- Assessment results data from the most recent academic year.
- Plans for the improvement of student learning that result from analysis of the data collected.

Additionally, general education and institutional learning outcomes (aka "core learning outcomes") are reviewed by the Carlow Compass Curriculum Steering Committee. In these reviews, which are designed to carefully examine the quality of education achieved by our Carlow Compass Curriculum / core curriculum, information and data on assessment of student learning are carefully evaluated by representative faculty from across the university.

## CLASSIFICATION OF STUDENTS

First-year: $\quad$ Students who have completed 0 to 23 credits Sophomores: Students who have completed at least 24 credits Juniors: Students who have completed at least 54 credits Seniors: Students who have completed at least 88 credits

Full-time Students:
Undergraduate students enrolled for 12 or more credits
Part-time Students:
Undergraduate students enrolled for fewer than 12 credits

## THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act, as amended (FERPA) does three things:

1. FERPA allows students to have the right to inspect their own records,
2. FERPA creates rules regarding the confidentiality and disclosure of education records, and
3. FERPA allows students to ask to have their records amended.

## CARLOW UNIVERSITY PROCEDURE FOR STUDENTS TO INSPECT EDUCATION RECORDS

Students who wish to inspect and review their own education records may submit to the Registrar a written request that identifies the records the student wishes to inspect. A University official will make arrangements for access and notify the student of the time and place where the records may be inspected within 45 days after the request was received. A University official may be present during the inspection and review.

Certain documents are excluded from the student's inspection of his or her education records. These exclusions are: (a) financial information submitted by the student's parents; (b) confidential letters of recommendation related to admission, employment, job placement or honors, placed in the file before January 1, 1975, or thereafter when the student has waived the right to inspect and review such letters of recommendation, (c) information about other students, and (d) documents that are not considered "education records". For example, documents which are in the sole possession of the maker of the document and are not shared with anyone else (except a substitute) are not considered education records maintained by the institution.

In general, students cannot inspect education records of other students unless the other student provides his or her written, signed and dated consent.

CARLOW UNIVERSITY PROCEDURES REGARDING DISCLOSURES OF STUDENT RECORDS

Carlow University Procedures for Students to Permit Disclosure of their Education Records to Their Parents and to Others. Carlow University students are encouraged to allow their parents and guardians to have access to their education records. To authorize disclosure to parents and guardians land anyone else not listed in the exceptions below), students must provide written, signed and dated, specific authorization specifying the records they wish to share. To do so, students may submit a form Authorization to Release Records with the Registrar. The student may email the completed form to the Registrar only from the student's own Carlow University email account. Otherwise, the student's signature must be hand delivered or mailed to the Registrar's Office. To revoke this authorization, students may alert the Registrar in writing, including by email.

Disclosure with the student's written consent is by no means mandatory or automatic. If a parent or guardian or other designated third party wishes to review a specific record, Carlow will respond to that request by reviewing whether Carlow has the student's written, signed and dated authorization to disclose on file and weighing other interests. In many cases, the University may choose to share information directly with the student to allow the student to determine how and when to share with others.

Written consent generally required: The general rule is that Carlow will not disclose personally identifiable information from the records of a student without the student's prior written consent. The list of exceptions (instances where Carlow may disclose education information without student consent) are set forth below.

Disclosures without student consent: Carlow may disclose information from education records, including personally identifiable information, without the prior written consent of the student in the following circumstances (some are mandatory disclosures and Carlow has no choice; some are discretionary):

1) To Carlow University officials who have been determined by the University to have legitimate educational interests in the records. A school official is:
a. a person employed by Carlow in an administrative, supervisory, academic or research, or support staff position. Any Carlow employee who needs information about a student in the course of performing instructional, supervisory, advisory, or administrative duties for Carlow University has a legitimate educational interest. For example, human resources and accounting staff may have legitimate educational interests for purposes of tuition reimbursement.
b. a person employed by or under contract to Carlow to perform specific tasks, such as an auditor, consultant, or attorney, a person on the Board of Trustees, or a student serving on an official committee or assisting another school official. Vendors (for example, technology vendors) who receive education records must sign contracts agreeing to use the
information only for the purposes designated in their contracts, must agree not to disclose information further and must otherwise agree to the protections and protocols in the Carlow University Non Disclosure Agreement.
2) To certain officials of the United States Department of Education, the Comptroller General of the United States, the Attorney General of the United States, and state and local educational authorities in connection with state or federally supported educational programs.
3) In connection with the student's request for, or receipt of, financial aid necessary to determine the eligibility, amounts or conditions of financial aid, or to enforce the terms and conditions of the aid.
4) To organizations conducting certain studies for or on behalf of Carlow University, provided such organizations agree to protocols regarding the safeguarding of the information.
5) To accrediting commissions or state licensing or regulatory bodies to carry out their functions.
6) To parents of a dependent student, as defined in Section 152 of the Internal Revenue Code. Although Carlow is permitted to disclose under the law, it is Carlow's policy to disclose only with the student's consent.
7) To comply with a judicial order or lawfully issued subpoena.
8) To appropriate parties in health or safety emergencies.
9) To officials of another school in which a student seeks or intends to enroll.
10) To an alleged victim of a crime of violence or sexual offense, the final results of the University disciplinary proceedings against the alleged perpetrator of that crime or offense with respect to that crime or offense.
11) To persons in addition to the victim of a crime of violence or sexual offense, the final results of the Carlow University disciplinary proceedings described in paragraph 10 above but only if the school has determined that a student is the perpetrator of a crime of violence or sexual offense, and with respect to the allegation made against him or her, the student has committed a violation of Carlow University's rules or policies. Carlow University, in such instances, does not disclose the name of any other student, including a victim or witness without the prior written consent of the other student(s).
12) To a parent regarding the student's violation of any federal, state, or local law or of any Carlow University rules governing the use or possession of alcohol or a controlled substance if Carlow determines that the student has committed a disciplinary violation with respect to that use or possession, and the student is under 21 at the time of the disclosure to the parent.
13) Directory information. Directory information is personally identifiable information which may be disclosed without the student's consent. Carlow University designates the following information as directory information:
a. Student's name
b. Address: home, local, personal email and Carlow email
c. Telephone numbers
d. Date and place of birth
e. Program of study
f. Participation in officially recognized activities and sports
g. Dates of attendance
h. Degrees and certificates awarded
i. Most recent previously attended school
j. Photograph of the student, if available
k. Enrollment status (i.e., enrolled, continuing, future enrolled student, reentry, leave of absence, etc.)
l. Student honors and awards received
m . The height and weight of athletic team members

Opting out of the directory: A student may request that his or her information not be included in the directory. To do so, please complete the Request to Restrict Directory Information (Opt-Out) Form or otherwise submit written notice to the Registrar. Failure to request nondisclosure of directory information may result in routine disclosure of one or more of the above-designated categories of personally identifiable directory information. Carlow University does not provide directory information to marketing companies, including credit card companies, ring vendors, or the like.
14) Student Recruiting Information. Carlow University is required to comply with certain requests made by the U.S. Military. Student recruiting information includes ONLY: name, address, Carlow email address, telephone listing, age or date of birth, class level, academic major, place of birth, degrees received and most recent educational institution attended. It does not include and Carlow University will not provide: social security numbers, race, ethnicity, nationality, GPA, grades, low performing student lists, religious affiliation, students with loans in default, veteran's status, and information about students no longer enrolled. Students who opt out of the directory also opt out of student recruiting information.

Records of Requests for Disclosure. The Registrar maintains a record indicating the parties who have requested or obtained personally identifiable information from a student's education records and the legitimate interests those parties had in requesting or obtaining the information. This record may be inspected by the student. The Registrar need not include in the record, disclosures made to the student himself/herself, disclosures made with the student's written authorization, disclosures to University officials and employees, and disclosures of directory information.

## PROCEDURE TO AMEND EDUCATIONAL RECORDS

Students have the right to request that a school amend records which they believe to be inaccurate or misleading or in violation of their right to privacy. To do so, the student files a written request to amend the record with the Registrar's Office, Carlow University, 3333 Fifth Avenue, Pittsburgh, PA 15213. The request should identify the part of the record they want to have amended and specify why the student believes it to be inaccurate or misleading.

Carlow will either amend the record or decide not to amend the record and will so alert the student. If Carlow decides not to amend
the record, the student then has the right to request a hearing. Carlow will arrange for the hearing and notify the student reasonably in advance of the date, place and time of the hearing. The hearing will be conducted by an individual who does not have a direct interest in the outcome. That individual may be an official of Carlow University. The student shall be afforded a forum for the opportunity to tell his or her side of the story and present documentation and other information relevant to the issues raised in the original request to amend. The student may be assisted by another person, including an attorney.

After the hearing, Carlow University will prepare a written decision based upon the evidence presented at the hearing. If Carlow determines that the record was inaccurate or misleading, it will amend the record and inform the student in writing. If, after the hearing, Carlow 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.

## MORE INFORMATION ABOUT FERPA

Students are afforded the right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5901

For additional information please visit
http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

## COURSE INFORMATION

## CLASS ATTENDANCE

Students have a responsibility to attend classes for which they have registered and fully participate in them. Specific attendance requirements for each course are established by the instructor. Students are obligated to be in attendance on days with examinations, major or minor, are scheduled. Students who absent themselves from examinations may be refused permission to take the examination at a later date; may receive a failing grade for the examination missed; and may receive a failing grade for the course. Further, absence from class on a day when an assignment is due does not excuse the student from the obligation to have the assignment turned in on time. Faculty may refuse to accept any work which is turned in late and may assign a failing grade for that work.

## WEEKEND COLLEGE AND CARLOW ACCELERATED PROGRAM COURSES

For Weekend College and Carlow Accelerated Program courses, attendance is crucial because of the compressed nature of the courses. Therefore, students missing more than two class meetings of a course will receive a failing grade. This includes partial absences that add up to more than two class meetings.

## FOR ONLINE/DISTANCE EDUCATION COURSES

In an online/distance education context, documenting that a student has logged into an online class is not sufficient, by itself, to demonstrate academic attendance by the student. A school must demonstrate that a student participated in class or was otherwise engaged in an academically related activity, such as by contributing to an online discussion or initiating contact with a faculty member to ask a course-related question.

## INDEPENDENT STUDIES AND TUTORIALS

Independent Studies: Students may explore areas not covered in the Carlow undergraduate curriculum through independent study. Upper level students may work independently or design a course to be pursued independently under the guidance of a sponsoring faculty member. Students must also maintain a minimum cumulative Grade Point Average (GPA) of 2.75 and demonstrate proficiency in dealing with pertinent materials.

Tutorials: Upper-level courses taught infrequently but listed in the Undergraduate Course Catalog can be taken as tutorials with agreement of the academic advisor and the faculty member. Prior to registration, the student must make arrangements with the professor who usually teaches the course. A tutorial may not be taken during a semester in which the same course is being offered as a class session. Exceptions to this policy must be approved by the department responsible for the tutorial.

Experiential Learning: EXP 250 provides experiential learning credit for participation in seminars, workshops, conferences, internships, or special events. Such experiences might include leadership conferences, the Mercy-sponsored trip to the United Nations, etc.

EXP 250 can be taken for $1-2$ credits during the summer terms only. A maximum of two credits may be issued for any given term. EXP 250 has a special summer pricing structure. Contact Student Accounts for the fixed rate.

## REPEATED COURSES

Students may attempt to improve their grade point average by repeating courses. A student wishing to repeat a course can do so only by taking the same course at Carlow University. When a course has been repeated, both grades remain on the transcript. The grade earned by repeating a course is used in lieu of the grade originally earned and will be used in the calculation of the cumulative GPA. No course may be taken more than three times. No course may be repeated at any other institution in order to have that grade accepted
as a replacement for the original grade earned at Carlow University. In some situations, it may be necessary for a student to repeat a course off campus. This situation will be handled on a case-by-case basis with oversight by the appropriate dean.

In the event that a student has failed, or is readmitted to a program, a course that is no longer offered or for which the student is ineligible to take by determination of the academic department, the department offering the course will decide what course or courses a student may substitute. Students should consult with the Office of Financial Aid for more information on how repeated courses might impact student aid.

## WITHDRAWAL FROM A COURSE

Withdrawal from a course must be made officially in the Office of the Registrar. A WD is assigned if a student officially withdraws from a particular course after the drop deadline and prior to the final date to withdraw in a given semester, according to the academic calendar published in the Carlow Course Schedule and online via myPortal. Withdrawing from a course does not withdraw a student from the University.

Grades of students who do not complete a course and who have not withdrawn officially will be listed as F.

## CREDIT FOR PRIOR LEARNING

Carlow offers six primary methods for gaining credit for collegelevel learning that has taken place outside the classroom. Students may obtain credits by means of the following: Advanced Placement Program of the College Board, College Level Examination Program (CLEP) examinations, College in High School courses, Course Challenge or Credit by Examination, Prior Learning Portfolio, and International Baccalaureate Program. A student may earn a maximum of 30 credits at Carlow, or elsewhere, through these options, either singly or combined. Any credits earned are not included in the number of credits necessary to satisfy college residence requirements. Carlow is part of the ACE Credit College and University Network that considers ACE recommendations for military training and experience. Carlow will also review additional types of credit for prior learning on a case by case basis.

Advanced Placement Program of the College Board: A student who has taken college-level courses in one or more subjects in high school and has submitted the results of the College Board Advanced Placement (AP) Tests will be considered for advanced placement. Test scores of 3,4 , or 5 may entitle the student to academic credit in course areas corresponding to the advanced study. Scores are submitted to the Office of Admissions, usually at the time of application for admission. The University Registrar will consult with the appropriate academic department to assign course equivalencies.
score of 50 or higher. Credit cannot be awarded if the student has already taken an equivalent course or a course at a more advanced level in the same discipline. CLEP scores are only applied to Core requirements. CLEP credit does not affect grade point average and does not count for residency requirements.

College in High School (CHS): A student who has taken College in High School (CHS) courses in one or more subjects during high school and has submitted official transcripts from the awarding institution will be considered for college credit. A grade of $C$ or better will be accepted for college credit. Course equivalency is determined by the Office of the Registrar in consultation with the appropriate academic department. Official transcripts are submitted to the Office of Admissions, usually at the time of application for admission.

Course Challenge or Credit by Examination: Some courses may be challenged for either credit or exemption by passing an examination and/or by satisfying another means of evaluation. Students may qualify for challenge if they have not already attempted to pass or challenge the course or have not been enrolled in the course for more than four weeks (for CAP and Weekend courses, consult the department office for appropriate time frame).
To challenge the course, students must submit to the appropriate academic department a declaration of intention as well as reasonable evidence of preparation. After a student has successfully challenged a course for credit, the course is entered onto the transcript and the notation "Credit by Challenge" is posted in lieu of a grade. Credits earned by challenge are charged at a special fee. If a student chooses exemption, the exemption is noted by the Office of the Registrar, and there is no fee. Students are permitted one attempt to successfully challenge or exempt themselves from a given course.

Prior Learning Portfolio: Available to matriculated adult students of the University with fewer than 30 Carlow credits, the portfolio is a narrative description of the writer's college level knowledge and experience which have been gained outside the classroom. It is an extended statement about personal, professional, and educational goals, a chronology of relevant life experiences, and an extensive written description, analysis, and documentation of these life experiences. Portfolio director and designated faculty members within the appropriate departments evaluate the portfolios, and upon their recommendations, students are awarded general elective credits, course-specific credits, core course credits, or major course credits. A student becomes eligible for portfolio assessment when the application is completed and the application fee is paid. Prior Learning Portfolio Credits are charged at a special tuition rate.

International Baccalaureate Program: Students who have completed the International Baccalaureate Program and score 5 or above on the examinations may qualify for Carlow University credit. In most cases, credits awarded will be for elective credit only.

## DEGREE REQUIREMENTS

General requirements for a degree for all students include the following:

Proficiency in the English Language: Each student is expected to demonstrate in all course work the ability to speak and write with precision and clarity, showing evidence of competent command of the English language.

Residence: Students must earn a minimum of 32 credits in courses taken at Carlow University in order to fulfill the residence requirements of the University. In addition, each major also has a specified residence requirement. Please check the specific major section of the catalog; however, students are required to take a minimum of 18 credits in a major at Carlow. The total number of credits that any transfer student will need to take at Carlow will be a combination of University residence requirements, major residence requirements, and core requirements as specified on the transfer evaluation issued upon admission to the University.

Credits earned through Advanced Placement, CLEP, College in High School, Course Challenge, Prior Learning Portfolio, or International Baccalaureate cannot be considered as part of the residence requirements.

Specific Program Requirements: Candidates for Pennsylvania Teacher Certification must maintain a 3.0 GPA to remain in good standing. Students in the nursing program must attain a 3.0 GPA to enter the specialized nursing sequences in the sophomore year and maintain a 3.0 each semester thereafter. Students majoring in biology who expect to be accepted in perfusion technology must present a 2.8 GPA.

Grade Point Average: To qualify for a degree, a student must attain a cumulative academic average of 2.0 GPA by the completion of the degree. Students must officially apply to graduate and must have a minimum of 120 credits (consult the specific academic program).

Capstone Experience: Graduating seniors are usually assessed in their major through examinations, comprehensive seminars, research presentations, practica, and/or internships.

General Education Requirements: The Carlow Compass and Core Curriculum requirements are listed in this catalog.

Academic Major Requirements: Specific requirements for majors are listed within each department section of this catalog. Students are required to take a minimum of 18 credits in a major at Carlow.

Minor Requirements: To earn a minor in an academic discipline, students must complete a minimum number of credits defined by the academic discipline. At least half of the credits for the minor must be completed with Carlow courses (taken in residence at Carlow)

Student Responsibility: Students are personally responsible for meeting all degree requirements. Advisors will assist them in course scheduling.

## DISABILITIES SERVICES OFFICE

This is a summary of Disabilities Services Guidelines and Policies. To access the full list of both, please see the Carlow University website at www.carlow.edu

Carlow University makes reasonable accommodations to provide qualified students with disabilities the opportunity to take full advantage of programs, activities, services, and facilities. The University's Disabilities Services Office (DSO) arranges specific reasonable accommodations for students and prospective students with disabilities. Current documentation regarding a student's disability is required and will be treated as confidentially as possible; it is not released without the student's consent, unless required by law. The Disabilities Services Office (DSO), faculty, and the student work together to identify appropriate academic adjustments, auxiliary aids and services, and/or other reasonable accommodations that may be warranted under particular circumstances.

Individuals with disabilities are encouraged to contact the University's Disabilities Services Representative in advance of the semester when accommodations/adjustments may be needed. Accommodations cannot be granted retroactively.

Carlow University has the right to establish qualifications and other essential standards and requirements for its courses, programs, activities, and services. All students are expected to meet these essential qualifications, standards, and requirements, with or without reasonable accommodations.

Students with disabilities who are requesting accommodations should contact the Disabilities Services Representative at 412.578.6257 to arrange a meeting and discuss specific guidelines. Copies of these guidelines for receiving accommodations are available from the Office of Disability Services.

## GRADES

## GRADING AND GRADE POINT AVERAGE (GPA)

Instructors publish their grading policies so students know exactly how grades will be determined. The following letter grades and their grade point equivalents are used at the University:

| Grade | Points | Grade | Points |
| :--- | :--- | :--- | :--- |
| A+ | 4.00 | C | 2.00 |
| A | 4.00 | C- | 1.75 |
| A- | 3.75 | D+ | 1.25 |
| B+ | 3.25 | D | 1.00 |
| B | 3.00 | D- | 0.75 |
| B- | 2.75 | F | 0.00 |
| C+ | 2.25 |  |  |
| NOTE: MINIMUM PASSING GRADE REQUIRED MAY VARY BY MAJOR. |  |  |  |

The cumulative Grade Point Average (GPA) is obtained by dividing the total points earned by the total number of semester hours attempted.

## GRADING-NO POINTS ASSIGNED

AU Audit-no points assigned
CC Credit by Challenge
EE Exempt by Examination
I Incomplete (See Incomplete Grade Policy on page 28).
IP Course in progress for seminar, research, or internship extending beyond one semester
M Military Leave of Absence
NG No grade or problem with grade reported by instructor
P/F Course offered by Pass/Fail only
WD Withdrawn

## AUDITING A COURSE

Students may audit a course with the instructor's permission and must register through the Office of the Registrar. Tuition for an audited course is slightly lower than tuition for a degree status course. A grade of $A U$ is given for an audited course with no credit.

## PASS/FAIL OPTION

The Pass/Fail option permits students to explore disciplines without jeopardizing Grade Point Average (GPA). The option must be exercised on the student's original registration or by the end of the add/drop period. Only electives can be completed with this option. The maximum number of credits earned under the Pass/Fail option is 15 .

## HONORS AND ACADEMIC RECOGNITION

## DEAN'S LIST

Eligibility for the Dean's List is determined each semester, not cumulatively. Students are eligible for the Dean's List under the following conditions:

- Completion of 12 credits at Carlow, including the semester under consideration;
- Enrollment in at least 12 credits for the semester in question lstudents who register for less than 12 credits in a semester should refer to Academic Recognition of Part-time Students below); and
- A GPA of 3.5 or above for the semester in question.


## ACADEMIC RECOGNITION OF PART-TIME STUDENTS

Eligibility for academic recognition of part-time students is determined each semester, not cumulatively. Students are eligible for academic recognition under the following conditions:

- Completion of six credits at Carlow, including the semester in question,
- Enrollment in six credits (eight in the upper level BSN completion program) for the semester in question, and
- A GPA of 3.5 or above for the semester in question.


## INCOMPLETE GRADE POLICY

An incomplete grade (I grade) at the end of a course is reserved for those students who have completed at least 75 percent of the course work, have a passing grade in the course, and for good reason (mitigating or extenuating circumstances) have assignments or examinations to complete. Incompletes are given at the discretion of the instructor for the course; the instructor makes the final decision to award an incomplete.

The I grade is automatically changed to 'F' by the Office of the Registrar if not removed within the required time frame (six calendar weeks from the end of the semester in which the I grade was assigned). For example, if the I grade is assigned at the end of the Spring semester, the Summer semester will be counted as part of the six weeks. In this situation, a Spring Incomplete grade change form will need to be submitted during the last week of June. Official deadlines for each semester will be supplied by Registrar and posted on myPortal.

Once the student has completed the work, the instructor notifies the registrar by submitting a Change of Grade form to the Office of the Registrar. Instructors reserve the right to require that work be submitted prior to the 6th week deadline in any given term. If an extension for an incomplete grade is needed, instructors must submit an Incomplete Extension form with Dean's approval to the Office of the Registrar prior to the six week deadline.

Credits assigned the grade of incomplete are not considered earned credits until completion.

## IN PROGRESS (IP) GRADES

The IP grade is reserved for certain courses where it is anticipated that a student's work will extend into the next semester le.g. thesis, project, internship, clinical, a third student teaching experience, etc.).

At the end of the semester in which the student completes the work, an earned grade will be assigned which replaces the IP grade. Individual programs may place a time limit on completion of the thesis, creative project, internship, or clinical course. Students should check with their individual program directors.

Students who are carrying an IP grade and do not register for classes for two or more semesters will have the IP grade converted to an NG (no grade). If those students are readmitted to the University, they will register and pay for the original course again with its associated credits.

## GRADE CHANGES

Once a grade has been submitted to the Office of the Registrar, the grade cannot be changed unless there has been an error or grade reconsideration on the part of the faculty member. To change a grade, the faculty member must complete the Change of Grade form with the appropriate department chair's signature and submit to the Office of the Registrar.

Students who have questions regarding a final course grade are to first consult with the instructor of the course. If no resolution can be reached, the student must consult with the chair of the department overseeing the course. In the event the instructor is the department chair, student should consult with the dean of school.

## INSTITUTIONAL REVIEW BOARD

Federal law protects the individual's right to privacy and protects citizens from harm from others. Research involving human subjects is reviewed to safeguard those rights. Carlow University has convened an Institutional Review Board (IRB) to ensure that all human subject research and/or projects that include data collection from human subjects is reviewed in advance by responsible, knowledgeable peers to protect these rights. Carlow University is committed to these laws based on moral, ethical, and legal grounds. All research that comes under the aegis of the University must meet the procedures established to ensure the privacy and protection of human subjects. These procedures are followed by faculty in their own research, and by students in any research they conduct, regardless of where it is actually conducted. Additional guidelines can be found on myPortal.

## GUEST STUDENT ENROLLMENT STATUS

Guest students (non-matriculated students) are those who are non-degree seeking-that is, students who are either taking credit-bearing courses but not seeking degrees or seeking to earn a certificate. Guest students are not eligible for financial aid or academic recognition; they are subject to the rules and regulations of the University. Guest students are limited to a maximum of 12 credits and may not exceed more than two classes per semester.

## PLACEMENT TESTING

The Center for Academic Achievement administers placement tests for incoming new and transfer traditional and adult students.

New First Year Traditional Students: Prior to starting mathematics coursework at Carlow University, incoming first-year students will test in mathematics to evaluate essential foundational skills that are important for success in college. The test results serve to identify the appropriate starting point in mathematics, particularly in certain majors, and/or become part of baseline information. Specific programs may require additional placement tests.

New Traditional and Adult Transfer Students: The Center for Academic Achievement administers math placement tests for incoming new traditional and adult transfer students. These tests evaluate basic competencies for students who do not have transfer equivalency credit for core requirements in this area. The results are used to identify the appropriate starting level course.

Students who take placement tests may be required to take an additional course based upon their final score on this evaluation. This course in addition to the standard curriculum and may lengthen the duration of the program and increase the overall cost. Additional earned credits will be applied to the total number of credits required for graduation.

## RE-ADMISSION PROCEDURE TO THE UNIVERSITY

Re-admission procedures have been established for the following categories of students:

- Any student who attended Carlow as a matriculated undergraduate or graduate student and withdrew before completing a degree
- Any student who has not attended Carlow for a period of four semesters, including the summer terms
- Any student who has been academically dismissed should see the Academic Standing section on page 21.

These students should contact the Office of Admissions and:
1.) Complete and submit a re-admission application.
2.) Submit official transcripts* if post-secondary institutions were attended after leaving Carlow.

Include course descriptions from each college outside of Allegheny County. Due to changing admission and curriculum requirements, the University reserves the right to re-evaluate all academic courses, whether completed at Carlow or elsewhere, to determine what will be credited toward the student's degree. The University also reserves the right to request placement tests, where appropriate, and to assign the student's advisor prior to enrollment.

Students are readmitted on the academic standing status they held when they last attended Carlow University. Students should refer to Academic Forgiveness on page 18 for additional information on readmission and academic standing.

* The transcript is considered official if it contains the seal of the institution and is issued directly to Carlow University. Transcripts delivered to the Office of Admissions by students are considered official only when sealed in an envelope with the institution's seal over the flap. Faxed transcripts are not considered official. International students may send or deliver transcripts directly to the Office of Admissions.
*Carlow University will accept electronic transcripts for admissions
purposes if the following criteria are met regarding the transcript:

1) The transcript is certified as official from the high school, college and/or proprietary school using a third party agency for the certification process. Approved agencies include AVOW Systems, Docufide, National Student Clearinghouse, and ScripSafe.
2) The transcript must be a PDF certified document that has no indication of tampering.
3) A college official must receive the transcript from an approved e-transcript service.
4) Carlow University has the right to refuse electronic transcripts or request additional information if there is question about the authenticity of the document.

## READMISSION FOLLOWING MILITARY DEPLOYMENT

Carlow University has established readmission polices to assist students who have been called to serve on active duty during the academic year. Students who will be out for a standard leave of absence timeframe will follow the university policies associated with a traditional leave of absence timeframe. Exceptions to this are cited in the university military and refund deployment policy. Students who return from military service within the leave of absence timeframe (one to three semesters, including summer) will reenter the university under the catalog for which they started their program of study. Students may enter under their original catalog unless the program requirements have changed significantly and the department overseeing the program recommends that the student move to the newest catalog with updated program requirements.

## ADD/DROP AND LEAVE OF ABSENCE/COMPLETE WITHDRAWAL NOTIFICATION

Non-attendance in classes does not constitute an official withdrawal and may result in full financial obligation.

Students seeking to drop all classes and to withdraw or take a leave of absence from the University must complete a Withdrawal/ Leave of Absence form and submit to the Office of the Registrar. The withdrawal form is available in the Office of the Registrar and other student service offices and online on myPortal. Students dropping all courses cannot use a Change of Registration form. Students can take a leave of absence for one to three semesters, including summer terms. Students should contact the Office of the Registrar upon returning for registration instructions.

- Students who are considering withdrawal should investigate the financial implications prior to any action.
- Financial aid recipients are urged to contact the Office of Financial Aid to determine how financial aid amounts will be affected by any withdrawal.
- For complete withdrawal from all classes in a semester, final determination of refund amounts will be made by the Office of Student Accounts and will be based on the date that the student initiated the withdrawal process by submitting the Withdrawal/ Leave of Absence form to the Office of the Registrar.
- Students wishing to withdraw from the residence hall must complete a Residence Hall Withdrawal Form available in the Student Life section of the myPortal. Refunds of room and board charges are governed by the Housing and Food Service Agreement signed by the student for the academic year.
- Students who do not return from a leave of absence or who are not registered for four consecutive semesters will be unofficially withdrawn from the university. Students who are unofficially withdrawn are still responsible for outstanding tuition balances.
- Refunds of Residence Hall deposits are processed upon request if the housing agreement has not been broken and if the student owes no outstanding balance or fine to the university.
- Students seeking to take a leave of absence or withdraw from the university for military activation must contact the Office of the Registrar.


## ADD/DROP

A student who officially drops a course(s) during the designated add/ drop period posted by the University Registrar but who is still registered for at least one course in the semester will receive a full refund of charges for the course(s) dropped.

For dropped courses, any refund of charges will be based on the date that the Change of Registration Form is received by the Office of the Registrar. Graduate students and undergraduate students at the sophomore level and above can make changes in registration using WebAdvsior during the add/drop period.

Add/drop deadlines are posted in the academic calendar, published in the University Course Schedule and on myPortal, and are also listed at the Office of the Registrar.

Financial aid recipients should contact the Office of Financial Aid to determine if the aid amount will be affected by a planned change in registration.

## REFUND POLICY

In some cases, students are entitled to a full or partial refund of charges. Refund amounts are connected to the student's official date of drop or withdrawal. Official dates and percentage of refund amounts are published in the academic calendar each semester in the Carlow University Course Schedule, on the University website, and in the student accounts section in myPortal. Specific questions about the refunds should be directed to the Office of Student Accounts.

## MILITARY DEPLOYMENT AND REFUND POLICY

The University will assist a student who is currently enrolled in an academic semester and who is called to active military duty with transition out of the University as quickly as possible. The student must file written documentation of the activation order with the Registrar. The student may then choose one of three options by contacting the Office of the Registrar.
1.) A student can take the grade $s /$ he has earned to date in the class provided that the student has completed at least 75\% of the course work, has a passing grade in the course and the student and faculty agree with this option. A student selecting this option will not be refunded any tuition or fees and will have his/her grade processed in the normal manner at the end of the semester with appropriate credits and grade awarded.
2.) A student can choose to have an Incomplete (I) grade recorded at the end of the semester provided that the student has completed at least $75 \%$ of the course work, has a passing grade in the course, and the student and faculty agree with this option. The student and faculty will need to discuss the completion requirements for the course. A student who has selected the incomplete grade option will have one year after return from active duty to contact the University to arrange for completion of the credits. If the incomplete is not satisfied in this time period, the grade will be converted to an "F". The student choosing this option will not receive a refund of tuition and fees.
3.) A student can choose to process a withdrawal from one or all courses with an " $M$ " grade at any time during the semester in which active military deployment occurs by informing the Office of the Registrar. Tuition and fees will be refunded or credited in full with no credit awarded for the term. The student should be aware that this option may result in the need to return funds to the University. The Financial Aid and Student Accounts Offices will inform the student of the impact of this option on the student account.

A student who resides on campus and who leaves for active duty assignment will be released from his/her housing contract for room and board. Fees will be refunded for the unused portion of the contract on a pro rata basis.

## REGISTRATION APPEALS

Changes to registration status resulting from injury to student or immediate family member, death in immediate family, sudden severe illness, accident, or exceptional trauma that is affecting the student's emotional and physical health may be cause for an appeal of change of registration deadlines and/or charges. Students must complete an appeal form, attach appropriate documentation, and send it to the Appeals Committee at appealsdacarlow.edu, which consists of a representative from the Offices of Academic Affairs, Admissions, Financial Aid, Registrar, Student Accounts, and Student Affairs, as well as faculty members. The student will receive a written response within 30 days of submission of the appeal.

## REGISTRATION

A student is officially registered for a course when named on the official class roster. Grades and credits will not be recorded for any course for which a student is not officially registered. Upon registration, a student agrees to pay all charges on the student account for that enrollment period according to the standard payment terms available on myPortal. Default of payment will result in a hold on future registration and release of transcripts. Tuition refund policies, deadlines, and more details for each semester are available on myPortal and in the Student Hub. Only officially registered students may attend class.

## CHANGE OF REGISTRATION

Students may change registration without academic penalty during the official add/drop period. Full-time traditional students who fall below 12 credits may lose financial aid and/or suffer financial penalties. Students should contact the Office of Financial Aid for details. These dates are published in the Carlow University Course Schedule and on myPortal. Students must have written permission from the instructor and advisor to add a course after the first week of classes.

In Weekend College and Carlow Accelerated Program courses, change of registration must be completed one day prior to the beginning of the second class. Students who miss more than two sessions cannot receive a passing grade for the course.
A WD is assigned if a student officially withdraws from a particular course prior to the final date to withdraw in a given semester. Grades of students who do not complete a course and who have not withdrawn officially will be listed as F.

See Carlow University Course Schedule and myPortal for official dates.

## CROSS-REGISTRATION

After their first semester at Carlow, all full-time students earning a Grade Point Average (GPA) of 2.0 or higher are eligible to register, through Carlow, for one course each semester to be taken at any of the other nine colleges and universities which are members of the Pittsburgh Council on Higher Education, provided the course is open for cross-registration and the student has met the prerequisites. The registrant must have the approval of the appropriate dean, major advisor, and the University Registrar. Grades earned through cross registration are posted on the Carlow transcript and counted in the GPA. Students may not repeat courses for which they received a D- or above at Carlow for credit or to replace a grade. Students must meet the prerequisites at the host institution. Cross registration privileges are not available for summer classes. Cross registration forms are available on myPortal. There is no additional tuition charge to crossregister, although you may be assessed course fees (e.g. for courses with a laboratory component) by the host institution. Students are responsible for special course or lab fees at the host institution. Academic rules and regulations of the host institution prevail.

There are nine schools where Carlow students can cross-register:

- Carnegie Mellon University
- Chatham University
- Community College of Allegheny County
- Duquesne University
- LaRoche College
- Pittsburgh Theological Seminary
- Point Park University
- Robert Morris University
- University of Pittsburgh


## TRANSFER OF CREDITS

Students transferring to Carlow from other institutions may have up to 88 credits accepted. A grade of $C$ or higher must have been earned. Courses taken for pass/fail or satisfactory/unsatisfactory grades may only be transferred if it can be verified that a pass or satisfactory grade is equivalent to a $C$ or higher. Only the credit is transferred, not the grade. A transfer evaluation will be done after a student is accepted and after all catalog or course descriptions have been received. It is the responsibility of the student to obtain the course descriptions or catalogs from all colleges or universities outside of Allegheny County.

Students may transfer 65 credits for courses that equate to 100 and 200 level courses at Carlow. An additional 23 credits may be transferred if the courses are equivalent to 300 or 400 level courses at Carlow. Once a student matriculates at Carlow University, the student must have permission from the faculty advisor and the University Registrar/transfer coordinator prior to beginning a class at another institution. Students may be permitted to transfer a maximum of 4 classes or sixteen (16) credits from other universities, exclusive of cross-registration. The student is also responsible for requesting that the registrar at the host institution forward an official transcript to the Office of the Registrar at Carlow University. Credit will not be accepted for a course if a student has not obtained formal permission from the advisor and University Registrar/transfer coordinator to take the course. Appropriate forms are available in the Student Hub and on myPortal.

Carlow University makes no promises about the transferability of its credits to another institution of higher education. Transferability of credits is determined exclusively by each receiving institutions Typical considerations involve whether the course substitutes for a course in the curriculum at the other institution, whether the student received a certain grade or better, how long ago the course was taken, how many credits the student seeks to transfer and other factors. Students who plan to transfer credits from Carlow can check with the registrar to see if there is an affiliation agreement in place and with the other institution to learn about their policies regarding transfer of credits before taking the courses when possible.

DUAL MAJORS

A student can pursue dual undergraduate majors at Carlow resulting in a single or double degree (BA, BS, BSN, and/or BSW). Both majors must be completed before any degree is awarded.

The student must complete the requirements for both majors, earning a minimum of 120 credits, although the student may need to complete more than 120 credits to fulfill both majors' requirements. All requirements of each major must be satisfied before the degree(s) is conferred.

## SECOND DEGREE FOR STUDENTS

Whether a student has completed a previous Carlow undergraduate degree or a degree at another institution, he or she must complete a minimum of 32 credits at Carlow for the additional degree. While previous courses can fulfill requirements if appropriate, 32 more Carlow credits must be completed to be awarded a second degree. In order to fulfill the requirements of the second degree, it is possible students may need to take more than the 32 credit minimum. Core curriculum requirements are waived for the second degree students.

Students who previously earned a Carlow University bachelors degree and are returning to complete the requirements for Bachelor of Science in Nursing should refer to Office of Admissions for specific residency requirements.

Residence Requirement: Refer to Degree Requirements section on page 27.

## PENNSYLVANIA TRANSFER AND ARTICULATION CENTER

Carlow University participates in the Pennsylvania Transfer and Articulation Center. Course equivalences between Carlow and other participating institutions are defined on the PaTrac website: http://www.patrac.org/

A student who completes an associate degree as defined in the Program to Program articulations will enter Carlow in the junior year. Students will not be required to complete Carlow Compass/ core requirements; however, a signature course encompassing Carlow's core values will be required. Major courses requirements are determined by the major department.

## IUITION AND FEES

A complete listing of charges and fees is available on the Carlow website at www.carlow.edu/tuition_and_fees and on myPortal. The University reserves the right to modify these charges if circumstances require. Payment options and student account policies are also listed on myPortal under the Student Hub/Student Accounts Tab.

## STUDENT ACCOUNTS PAYMENT POLICIES

Each semester, payment is due by the due date published on myPortal. A student must pay the balance due or begin an official payment plan to cover any balance that will not be cleared by pending financial aid in order to begin attending classes and to move into the residence halls.

Ten business days prior to the start of the semester, registration may be voided for any returning student who owes an outstanding balance of $\$ 4,000.00$ or more for a previous and upcoming semester combined after any finalized financial aid would be applied to the student account and who has not made payment arrangements with the Student Accounts Office. A notification letter will be sent to any student whose registration has been voided. Registration can be reinstated within the first week of the semester after the student pays the balance due or makes satisfactory payment arrangements. Reinstatement of registration will be subject to course availability.

Student accounts are audited during the semester and bursar holds are added to delinquent accounts. A bursar hold prevents receipt of transcripts. A registration hold is also placed on an account that has a delinquent balance of $\$ 500$ or higher.

Upon graduation, a student must pay all outstanding obligations to the University prior to receiving a diploma and transcripts.

A student who is no longer enrolled at the University and has an outstanding balance must make satisfactory payment arrangements or the account may be placed with a collection agency, incur additional collection agency/legal fees of up to $331 / 3 \%$ of the balance due, and be reported to credit reporting agencies.

## CARLOW UNIVERSITY CREDIT HOURS

Carlow University complies with Federal (U.S. Department of Education) and Middle States Commission of Higher Education (MSCHE) and Pennsylvania Department of Education (PDE) regulations pertaining to degree requirements and credit hours. Carlow University undergraduate degrees require the successful completion of 120 semester credit hours. All graduate degrees require a minimum of 30 semester credit hours.

Carlow University's academic year is separated into fall, spring and summer semesters. Fall and spring are traditionally 15 weeks in length with an additional week for finals. Accelerated semesters (CAP/WEC) are typically five or eight weeks in length. Summer classes generally running for eight weeks. All formats, including traditional semester-length classes and the accelerated and summer formats, must comply with the university credit hour policy.

All new courses will have a credit hours calculation worksheet completed as part of new course development. For accelerated and weekend courses, faculty must also document, through their extended syllabi, how CAP/WEC courses will meet the minimum
semester credit hour requirement. In addition, existing courses are reviewed periodically by the College Dean and Office of the Registrar to ensure that the work load is consistent with the potential credits to be earned.

## BACKGROUND

The U.S. Department of Education, at 34 CFR Section 600.2, defines "credit hour" as:
"...an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:
(1) one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or,
(2) at least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

The Pennsylvania regulation states, in part, "A semester credit hour represents a unit of curricular material that normally can be taught in a minimum of 14 hours of classroom instruction, plus appropriate outside preparation or the equivalent as determined by the faculty. A quarter credit hour represents a unit of curricular material that normally can be taught in a minimum of 10 hours or classroom instruction, plus appropriate outside preparation or the equivalent as determined by the faculty." 22 Pa. Code Section 31.21(b).u

The Middle States Commission on Higher Education, in its Credit Hour Policy, effective August 23, 2013, requires institutions to verify compliance with Credit Hour regulations.

## CARLOW UNIVERSITY CREDIT HOUR POLICY

## Carlow University has adopted the Credit Hour as the unit measure of instruction for awarding credit.

At Carlow University, a credit hour is equivalent to one hour of classroom instruction ( 50 minutes) with a normal expectation of two hours of outside study for each class session. Typically, a threesemester credit hour course meeting for 45 total hours over 15 weeks requires 90 total hours of out of class academic engagement. Carlow adheres to the Federal standard of a total expectation of 45 total learning hours ( 15 hours for every 1 credit earned) in a semester regardless of time frame of delivery.

## CARLOW UNIVERSITY COURSE METHODS

## DELIVERY METHOD:

1. Onsite - all classes meet at a site (can be a combination of campus and another site-ex. Clinical Rotation or Student Teaching)
2. Hybrid - has a reduced number of face-to-face meetings. Blends online and face-to-face meetings. Hybrid courses will have meeting dates onsite.
3. Online - all content is delivered online. There are no required face-to-face meetings.

## LEVELS OF SYNCHRONICITY:

1. Completely Synchronous - regardless of whether the faculty member and students are in the same location or are online, they have at least 45 hours together at the same time (in real time) for a 3 credit lecture or seminar course.
2. At least $50 \%$ synchronous - regardless of whether the faculty member and students are in the same location or are online, they have at least 22.5 hours but less than 45 hours together at the same time (in real time) for a 3 credit lecture or seminar course. CAP/WEC college format courses generally follow this formula.
3. Less than $50 \%$ synchronous - regardless of whether the faculty member and students are in the same location or are online, they have more than 0 but less than 22.5 together at the same time lin real time) for a 3 credit lecture or seminar course. 0 but less than 21 hours for CAP/WEC college format.
4. Completely Asynchronous - faculty member and students have no (real time) together. This would be a pure online section with no (real time) meetings.

## INSTRUCTIONAL FORMAT:

| Clinical | Seminar |
| :--- | :--- |
| Externship | Student Teaching |
| Field Placement | Studio |
| Independent Study | Thesis |
| Internship | Tutorial |
| Lab |  |
| Lecture |  |
| Practicum |  |

## CARLOW UNIVERSITY CREDIT HOUR REQUIREMENTS

## Method of attributing credits per course:

## Undergraduate/Graduate credits are assigned per semester

 as follows:
## Lecture/Seminar

3 credits, 1 hour of classroom instruction and two hours of outside study per credit (45 total hours per credit with 90 total hours of out
of class academic engagement equaling 135 total hours for three credits) over 15 week format

## Accelerated CAP/ Weekend WEC

3 hours per week over 8 week format, plus additional hours of equivalent instructional activities. 135 total hours for three credits.

## Lab

1 credit, 2-4 hours per week(depending on the program) with 2 or more hours of student prep time per week over 15 week format

## Clinical

1 credit per 60 hours of clinical contact

## Student Teaching

12 credits per semester, 640 hours of total student teaching. 16 weeks, 8 hours per day/5 days per week

## Internship/Externship

$1-6$ credits, 45 hours in field per credit

## Psychology Internship

1 credit, 45 hours in field per credit

## Art Therapy Practicum

1 credit, 45 hours in field per credit

## Field Placement

$3-5$ credits, 135 to 225 hours in the field per credit depending on the program

## Online

Refer to calculating credit hours for synchronous and asynchronous environments

## Studio

3 credits, 50 minute clock hours ( 60 total hours) over 15 week format

## Independent Study/Tutorial

Credits vary; contact hours will vary based upon program and or program requirements and will meet minimum credit hour requirements

## Specialized Graduate credits are assigned as follows:

Nursing Clinical
1 credit per 75 hours of clinical contact

## Thesis

$3-6$ credits, hours variable per program

## Internship/Practicum

1-4 credits, 45-100 field experience hours per credit
Professional Counseling Practicum

3 credits, 100 hours of field experience, plus additional hours of class/preparation time. 135 total hours for three credits

## Doctor of Psychology Practicum

3 credits, 300 hours of field experience

## Doctor of Psychology Internship

9 credits, 2000 hours of internship experience

## Student Teaching

6 credits per semester, 640 hours of total student teaching.
16 weeks, 8 hours per day/ 5 days per week

## CREDIT HOURS FOR ONLINE, HYBRID, AND ACCELERATED/ WEEKEND COURSES

Credit hours for online or hybrid learning courses, as well as accelerated and weekend courses at Carlow must adhere to the Federal standard of a total expectation of 45 total learning hours for every 1 credit ( 15 hours of instruction with 30 hours of out of class academic engagement) earned in a semester regardless of time frame of delivery. All course developers are expected to complete the credit hours calculation worksheet as part of new course development. For accelerated and weekend courses, faculty must also document, through their extended syllabi how CAP/WEC courses will meet the minimum semester credit hour requirement.

## CALCULATING CREDIT HOURS FOR SYNCHRONOUS OR ASYNCHRONOUS ENVIRONMENTS

The following is a brief description of the types of activities that can be included in learning hour calculations. Many courses will present unique learning activities not directly covered in the exact or estimated equivalent examples provided below. Equivalent Instructional Activities contribute toward the total number of learning hours by using the following examples:

## EXACT EQUIVALENT (1:1, I.E. ONE LEARNING OR CONTACT HOUR FOR EVERY HOUR SPENT)

- Face-to-face or live synchronous sessions, such as classroom or web-based lectures or class sessions, real-time chat sessions, or conference calls
- Other live 'classroom' time (i.e. internships or practica, guided field experiences (museum or facility tours), studio work, virtual or at-home labs for chemistry/biology, service projects, etc.)
- Videos, audio recordings, recorded lectures or webinars, or timed animations/simulations/demonstrations
- Student presentations via web conferencing
- Proctored exams or quizzes


## ESTIMATED EQUIVALENT

- Blackboard/module pages (estimated number of words at average adult reading rate)
- Learning assets such as assigned reading, digital mini-books, articles, simulations, self-paced modules, case studies, etc. (calculated average time needed to 'consume' the material assuming the student reads 10 to 15 pages per hour. Time may vary by department)
- Instructor-facilitated or instructor-feedback-rich activities such as discussion boards, wikis, journals, group projects (instructor expectation of time to be spent)
- Student presentations via virtual poster session linstructor expectation of time spent reviewing and commenting on 'posters' or presentation)
- Instructor-guided research activities linstructor expectation of time to be spent)
- Low-stakes quizzes used as comprehension checkers linstructor estimation of time spent)
- Preparation for examinations linstructor estimation of time to be spent)
- Discussion question preparation linstructor estimation of time spent)
- Homework/Working Problems time linstructor estimation of time to be spent)


## ACCEPTABLE RANGES OF STUDENT LEARNING HOURS

Given the diversity of course offerings and delivery and instructional formats, calculating student learning hours requires flexibility. Because of this, the following chart was devised to provide a foundation for calculating student learning hours. Equivalent Instructional Activities helps to supplement time when courses do not meet the traditional ( 45 total learning hours, 15 hours for every 1 credit earned).

Credit Value of Course 4
Target Number of Student Learning Hours 180

Credit Value of Course 3
Target Number of Student Learning Hours *135
Credit Value of Course 2
Target Number of Student Learning Hours 90

* Example represents a traditional course meeting for 45 contact hours with 90 hours of out of class academic engagement. This follows the federal guideline for every one hour in class the student will have two hours of work outside the classroom.

For courses with abbreviated contact hours, the out of class academic engagement will be supplemented via Equivalent Instructional Activities.

## GENERAL EDUCATION REQUIREMENTS

## EFFECTIVE FOR ALL INCOMING FIRST YEAR NONTRANSFER STUDENTS—FALL TERM 2015

## CARLOW COMPASS CURRICULUM OVERVIEW

The Carlow Compass is a unique and innovative general education curriculum rooted in the liberal arts and the Catholic Intellectual Tradition, and is intended to serve as a navigational tool to help guide a student toward her/his academic and professional goals. The curriculum is integrated with a student's major course of study, and aligns with the university's mission, vision, and Mercy heritage. The Compass emphasizes career-readiness and ethical leadership, and courses introduce, develop, and reinforce specific learning outcomes. With the Carlow Compass, students can design, navigate, and explore their own educational pathways.

Disclaimer: The Carlow Compass Curriculum went into effect for all first year, nontransfer students entering in the fall term 2015. The Carlow Compass goes into effect for all other incoming students in the fall term 2016.

## CARLOW COMPASS REQUIREMENTS: FIRST YEAR

## CTC 101 Connecting to Carlow

This course introduces students to the Carlow University curriculum, vision, mission, and resources. It promotes intellectual engagement with the liberal arts and seeks to deepen a student's skills in reflective self-exploration. In this course, students will analyze their own academic and career goals and develop a self-directed plan of study. The course takes a "big picture" or "meta-cognitive" approach, and helps students consider the connection between the liberal arts, their major, and career-readiness. This is a pass/fail course. 1 credit

## 148 Critical Exploration

All courses with a 148 number meet the critical exploration requirement. This course, which can be from any liberal arts discipline, focuses on specific topics related to the discipline. The course can be applied to a minor. It introduces and develops the Learning Outcomes of: Critical Reasoning, Written Communication, Liberal Arts Integration, and Information and Digital Literacy. This course can also be used in partial fulfillment of the Liberal Arts Breadth requirement (see below). Usually taken in the fall semester. 3 credits

## 149 Contemplation and Action

All courses with a 149 number meet the Contemplation and Action requirement. This course, which can be from any liberal arts discipline, focuses on the Mercy tradition of service through examination and analysis of societal issues, and development of reflective practice. This course can be applied toward a minor. It introduces and develops the Learning Outcomes of: Ethical and Social Responsibility, Critical Reasoning, and Written Communication. This course can also be used in partial fulfillment of the Liberal Arts Breadth requirement (see below). Usually taken in the spring semester. 3 credits

## SKILLS COURSES

## SKC 101 Communication: Personal to Professional

This course is designed to introduce students to the knowledge and skills needed to communicate effectively in both personal and professional situations, using traditional [face-to-face] and digital mediums. Students will study the essential concepts and models of communication; while designing and presenting formal presentations. Topics include: interviewing; ethics; nonverbal communication; team building; visual aids; demonstrating appropriate use of ethos, pathos and logos in the organization; and delivery of a presentation, demonstrating college-level research and critical thinking skills. All students will deliver individual and group presentations. It is recommended that this course be completed during the first year of study. 3 credits

## SKC 100 Communications Lab

This communication skills course is seen as an extension of the learning that takes place in the SKC 101 course. Students will demonstrate the practical applications of the theories and skills in communication assessment, interviews, listening, communication ethics, research, evidence and team work. Additionally, students will construct digital forms of communication using best practices for effectiveness, including short visual aids and videos. The work in the SKC 100 class parallels the learning in the SKC 101 class. 1 credit

## SKQ 101 Quantitative Reasoning

This course is designed to study the fundamental skills required to understand quantitative information in personal, societal, and career contexts and to use this information to effectively form conclusions, judgments, or inferences. These skills include the ability to consume quantitative information presented in many formats as well as the ability to articulate arguments using quantitative evidence to a variety of audiences. Topics include: critical thinking, number sense, statistical interpretation, basic probability, graphical representation, and analysis of data. Students will have the opportunity to consider
the ethical issues surrounding the use of data as engaged citizens of the world. It is recommended that this course be completed during the first year of study. 3 credits

## SKQ 100 Quantitative Reasoning Lab

This course provides an opportunity to expand on the skills developed in SKQ 101. Generally, this course will focus on applying quantitative reasoning to a range of public issues or in the practice of a disciplinary field of study. Students have repeated opportunities to practice thinking deeply about contextual numbers, communicating the results of that thinking in evidence-based arguments, and questioning the quantitative reasoning of others. Students develop confidence in working with quantitative information. PREREQUISITE: SKQ 101. 1 credit

## SKW 101 Foundations of Writing

This course is designed to teach the fundamentals of college writing and research. These fundamentals include the basic elements of rhetoric (written or spoken communication): the organization of ideas, careful use of evidence, reasoned analysis, and coherent use of the fundamental mechanics and grammar of English diction and style. Students will practice drafting expository documents using the traditional techniques of effective written communication and will also be introduced to professional written communication. Several of the expository documents will involve college-level research, which requires proficient information literacy and appropriate use of citation styles. Students who register for this course should also register for the SKW 100 Writing Skills Lab. 3 credits

## SKW 100 Writing Skills Lab

This introductory lab focuses on the development of basic reading and writing skills. It is designed to support SKW101 Foundations of Writing. Students will practice close/annotated reading and basic grammar and mechanics skills, learn the basics of information literacy, and have an introduction to APA and MLA documentation styles. The writing exercises in this lab will parallel the work being done in the SKW 101 course. 1 credit

## CARLOW COMPASS REQUIREMENTS: SOPHOMORE, JUNIOR, SENIOR YEARS

## Liberal Arts Breadth Requirement: (12-24 credits total)

Students are required to complete two courses in different liberal arts disciplines in each of the following categories:

## Expression

One 100- or 200-level course from two different liberal arts disciplines from the following: Art, English, Music, Theater (1.5-credit mini-courses can be used to fulfill this requirement).
Total of 3-6 credits

## Natural World

One 100- or 200-level course from two different liberal arts disciplines from the following: Biology, Chemistry, Mathematics, Physics, Psychology (1.5-credit mini-courses can be used to fulfill this requirement). Total of $3-6$ credits

## Social Justice

One 100- or 200-level course from two different liberal arts disciplines from the following: Communication, Economics, Political Science, Sociology, Women's and Gender Studies (1.5 credit minicourses can be used to fulfill this requirement). Total of 3-6 credits

## Wisdom

One 100- or 200-level course from two different liberal arts disciplines from the following: History, Philosophy, Theology (1.5-credit mini-courses can be used to fulfill this requirement).

Total of 3-6 credits

## Liberal Arts Depth Requirement

Students are required to take one 200- or 300-level, 3-credit course in a liberal arts discipline in which they've already completed a breadth experience. Students will be expected to engage in a deeper exploration of a topic within the course. This course must be a course outside the student's major. 3 credits

## Upper-Level Ethics and Social Responsibility Requirement

Students are required to complete one upper-level Ethics and Social Responsibility requirement. This course deepens understanding of the Mercy tradition of service and social responsibility. and builds on the Ethics and Social Responsibility Learning Outcome introduced in the Contemplation and Action course. Service Learning courses fulfill the Ethics and Social Responsibility requirement. 3 credits

## Junior Anchor Course

All students are required to complete a Junior Anchor course their junior year. This is a synthesis course where students engage in assignments that incorporate multiple liberal art perspectives. This course also guides students through a reflection on how the liberal arts connect to their majors. Students will also reflect on and engage with important aspects of career-readiness. This course serves as the signature course for transfer students starting in fall 2016. 3 credits

## CARLOW COMPASS REQUIREMENTS: SENIOR YEAR

## Senior Capstone

All students are required to complete a senior capstone experience. Students should consult with their major advisor regarding this requirement. Minimum 1 credit.

## EFFECTIVE FOR ALL TRANSFER STUDENTS STARTING FALL TERM 2015, SPRING 2016, AND SUMMER 2016

## CORE CURRICULUM: OVERVIEW

The baccalaureate degree program requires the completion of 120 credits (nursing majors must complete 123). Twelve to 18 credits per semester makes a student full time, with the normal load being 13 to 16 credits per semester. There is an additional tuition charge for credits beyond 18 . One credit represents a unit of curricular material which is normally taught in a minimum of 15 hours of classroom instruction as determined by the faculty offering the course. All students who earn baccalaureate degrees from Carlow University are required to complete all the degree requirements.

The courses required for a student's particular major are detailed in this catalog or in the program evaluation for the major. The program evaluation, available on WebAdvisor is to be used in conjunction with the advisor to develop the student's educational plan.

## CORE CURRICULUM COURSES

The Carlow Core Curriculum is an integrated academic experience incorporating the values of the institution and its heritage as a Catholic, women's liberal arts university. This curriculum encourages independent thinking while linking the knowledge and skills inherent in the liberal arts as they enhance the student's understanding of the world. Thus, it prepares students for participation in the global community while they begin their journey of life-long learning. This interdisciplinary core curriculum addresses the areas of Liberal Arts Inquiry (knowledge areas) essential for critical thinking and creativity, enabling students to develop their potential for leadership as contributing members of society, and as thinking persons who value the liberal arts for its ability to illuminate the human experience and growth.

Three core themes-expanding worldview, valuing and respecting self and others, and reflecting on learning-summarize the values of the institution stated in the University's mission statement. These themes are addressed throughout the student's academic career as they are animated through course work, lectures, and activities at the University each year.

Carlow's core curriculum went into effect for all first-year students entering the traditional day undergraduate program in the fall term 2003. First-year students entering the Adult Degree Center (ADC) programs, including the Carlow Accelerated Program (CAP) and the Weekend College, in the fall term 2004 follow the new core curriculum. The core curriculum is framed around three components: inquiry, skills, and integrative learning experiences. All incoming first-year, first-time undergraduate students are required to meet the following requirements:

## I. INQUIRY, ANALYSIS, AND SYNTHESIS <br> LIBERAL ARTS INQUIRY (LAI) COURSES

Students are required to fulfill learning outcomes in each of the ten LAI areas through a 3-4 credit course; Students can combine up to four LAI requirements by taking interdisciplinary courses approved for two LAI disciplines. These LAI areas were chosen to give students a broad understanding of the liberal arts. A strong liberal arts education enables students to explore ideas and theories from a variety of disciplines in the arts, humanities, mathematics, natural sciences, and social and behavioral sciences. Courses approved as LAI courses will have the following notations:

```
Economics/Political Science (E)
Fine Arts (F)
History (H)
Literary Arts (L)
Mathematics (M)
Natural Sciences (N)
Philosophy (P)
Social and Behavioral Sciences (S)
Theology ( \(T\) )
Women's Studies (W)
```


## II. SKILLS

## CARLOW UNIVERSITY SKILLS COURSES (CC)

Skill proficiency enables the life-long learner to effectively seek out information, apply it in making decisions, and communicate reasoning to others. Each student must demonstrate competence in five skills areas: writing, speaking, quantitative reasoning, research, and technology. These skills are introduced in three courses:

CC 100 College Writing and Research
CC 101 Presentation and Argumentation
CC 102 Quantitative Reasoning
Research and technology are integrated throughout all three of the CC courses. All students entering Carlow University must pass these three CC courses within their first year at Carlow.

## III. INTEGRATIVE LEARNING EXPERIENCES

Integrative learning experiences assist the student in extending learning across disciplines and within the community. The goal of the integrative experiences is to help the student to see a wider perspective of the world and to see below the surface of issues and situations.

## First Year Seminar:

The goals of the First Year Seminar are to orient students to the academic community and academic success; to connect students with Carlow University, the history and mission of the University, its support services and departments; and to connect students with other students and faculty. Students will take FYS 101 and either CC 100 or CC 101 with the same group of students. The course will explore college knowledge along with career and academic goals. The course is graded A-F.

## Linked or Interdisciplinary Experiences*

Students must complete one linked or interdisciplinary experience course; these may be fulfilled by LAI courses, courses in one's major, and/or electives. A primary objective of both linked and interdisciplinary experience courses is to facilitate learning that integrates the content, perspectives, and methodology of two or more disciplines. Through interdisciplinary study, students learn to approach problems or issues using the concepts, theories, methods, and knowledge of each discipline. Linked courses are two courses that have separate syllabi and instructors. Each syllabus will describe ways in which the courses are linked. Interdisciplinary courses will be a single course having one syllabus taught by two or more instructors.

## Service-Learning Experience*

One service-learning course is required for graduation. The servicelearning course seeks to connect students to the University's mission by providing an opportunity for expanded intellectual and social development for students while serving the community at large. Each student is required to write a service-learning reflection paper that documents and reflects on the service-learning course experience.

These requirements are currently suspended for Adult/ADC students.

## Global Perspectives

Language and Global Learning open one's world to a global perspective. Language presents a culture that sees the world differently, with a richness that deepens that universal understanding of what it means to be human. Study abroad and cross cultural courses enhance one's understanding of what it is to respect and to participate in a diverse, multicultural world. Global Learning fosters intercultural understanding and competence in social, political, and economic areas.

## FYS AND SKILLS <br> COURSE DESCRIPTIONS

## FYS 101 First Year Seminar

The goals of the First Year Seminar are to orient students to the academic community and academic success; to connect students with Carlow University, the history and mission of the University, its support services and departments; and to connect students with other students and faculty. Students will take FYS 101 and either CC 100 or CC 101 with the same group of students. The course will explore college knowledge along with career and academic goals. The course is graded A-F. 1 credit

## CC 100 College Writing and Research

This course is designed to teach the fundamentals of college writing and college level research. Students will write and revise a variety of expository documents using the traditional techniques of effective written communication. This course includes an introduction to the library and its resources so that students will learn to identify research topics and credible sources, gather and record information, and integrate research into a cohesive argument using correct citation style. Use of a word processing program is required. This course must be completed during the first year of study. 3 credits

CC 101 Presentations and Argumentation
This course is designed to introduce the knowledge and skills needed to present effective oral presentations and to construct clear arguments using credible evidence. Topics include: adapting messages to an audience, demonstrating appropriate use of ethos, pathos, and logos in the organization and delivery of a presentation, demonstrating college-level research and critical thinking skills, plus designing and using effective visual aids. All students will deliver individual and team presentations. Required of all undergraduates, this course must be completed during the first year of study. 3 credits

## CC 102 Quantitative Reasoning

This course is designed to study the fundamental skills required to understand quantitative information and to use this information to effectively form conclusions, judgments, or inferences. Topics include: critical thinking, number sense, statistical interpretation, basic probability, graphical representation and analysis of data, and interpretation of standard quantitative models. Students will also be introduced to the effective use of spreadsheet software to enhance quantitative reasoning. This course must be completed during the first year of study. 3 credits

## MAJOR FIELD OF CONCENTRATION

All students must select a major field of concentration before the end of their sophomore year. In compliance with the Pennsylvania Department of Education Board of Governors, a major that confers a Bachelor of Arts degree may require 27 to 44 credits. Majors that confer a Bachelor of Science degree may comprise a greater amount of credits. Faculty may offer the opportunity for independent study and off-campus experience for each student in the field of concentration.

Refer to the specific academic department in the following Academic Policies-Degree Requirements section of this catalog for specific information about the course of study for majors, minors, certificates, and certifications.

## Minor Courses

Students may select a minor that consists of a minimum numbers of credits defined by the academic discipline. At least half of the credits for the minor must be completed with Carlow courses (taken in residence at Carlow University). Departments provide information on minors and approve students' course selections.

## Support Courses

Students in certain majors may be required to take courses outside the major that support the major sequence of courses. Departments provide further information on support courses.

## Electives

Students are free to choose from elective courses according to their aptitudes and interests. The courses may also be those needed to achieve certification or to complete a minor or a second major.

## THE HONORS PROGRAM

The Honors program invites exceptional students who want to excel in intellectual development and leadership skills to advance their personal and professional success and make significant contributions to society. Through the program, students have expanded opportunities to obtain individualized academic and career planning, develop close relationships with other students and faculty mentors, participate in experiential learning, attend field trips, explore interesting concepts, commit to social justice and graduate from Carlow with distinction.

Honors Program requirements include:

- Honors Core Curriculum Course (3 credits)—meet other Honors students, deepen existing skills in writing/presenting/ quantitative reasoning; solidify essential skills for the major. Fall semester of first year
- IS $\mathbf{1 6 8} \mathbf{H}$ Honors Foundation Seminar (1 credit)—engage in critical thinking via exploration of contemporary events and academic goal setting. This course serves as the foundation for students in the Honors Program with the goal of activating their academic engagement for a rigorous, expansive experience at Carlow. The course takes a two-pronged approach to laying a foundation in Honors education: 1) building the foundation for critical thinking in regard to contemporary ethical and social justice issues and 2) hands-on academic planning, career goal-setting and development of mentors. The exploration of contemporary events will include experiential learning, site visits, guest speakers, readings and discussion pertaining to the topic chosen for that year. Topics chosen will connect to Carlow's mission and a foundation in the liberal arts. Students will also engage in the process of academic and career planning in order to make the most of their undergraduate experience as Honors students. Students will discover resources available to them in order to meet their goals and identify mentors to help guide them towards success.
Spring semester of first or second year
- Honors Project within the Major (3 credits)—work with a faculty member in the major to design and execute a scholarly project. Projects can be research-based, experiential, service-learning, creative expression and more.
Second through fourth year
- IS 3681H Junior/Senior Honors Colloquium (3 credits)an advanced interdisciplinary course that examines in depth a challenging social issue through the perspectives of three academic disciplines. In this course, three separate yet interrelated approaches are presented by three faculty members. This course is a requirement of the Honors Program. It is usually offered each spring. FULFILLS INTERDISCIPLINARY REQUIREMENT
Spring semester of third or fourth year

In addition to the academic components of the program, students also have opportunities for enhanced extracurricular experiences, including attending local cultural events or speakers and programsponsored trips. Honors students receive advising and mentorship from faculty and the Honors directors.

Sophomore and junior Honors students who are humanities majors are eligible for the William Patrick McShea Scholarship. Students in the Honors program maintain a cumulative grade point average of 3.6 or above. Honors coursework is noted on students' transcripts. Students who successfully complete the program are recognized as Carlow University Scholars upon graduation

Invitation to the Honors Program is extended to incoming first-year students by the University's admissions staff and is determined on the basis of standardized admission tests and high school records. Students earning a GPA of 3.6 or higher during the first semester of their first year may also ask faculty to nominate them to join the program.

## PHYSICAL EDUCATION

Physical education courses are directed toward activities that foster physical fitness and creative expression. Courses are designed to afford students the opportunity to acquire skills and knowledge necessary to enhance their quality of life and to establish lifestyles that promote emotional and physical wellbeing.

## COURSE DESCRIPTIONS

## PE 104 Aerobics

Beginning level of aerobic activity and exercise, emphasizing cardiovascular endurance, flexibility, and coordination. Prior experience is not required. 1 credit

## PE 111 Triathlon

Introduction to the sport of triathlon, educating the student on training principles and methods for endurance sports. Instruction on the various athletic disciplines involved in triathlon will include both classroom lectures as well as student participation in swimming, cycling, running, and weight training. The course culminates in an in-class triathlon. 1 credit

## PE $120 \quad$ Fitness and Weight Control

Understanding of the important correlation between exercise and nutritious eating as it affects body weight. Emphasis will be placed on low-impact exercise, charting food intake, and the achievement of weight loss, gain, or maintenance of goals. 1 credit

## PE 121 Aquatic Fitness

Improving muscular strength, flexibility, and cardiovascular endurance while learning various water exercise techniques. Aqua aerobics, water walking, and use of aquatic exercise equipment are studied. 1 credit

## PE 123 Walking for Wellness

Improving health does not necessarily mean high intensity exercise. Discover the health benefits of a walking program. Learn how to improve your fitness levels and total well-being. All levels of fitness are encouraged to participate. 1 credit

## PE 125 Healthy Lifestyles

Introduction to the concept of wellness, consisting of three major components: nutrition: assessing dietary habits, caloric needs, and goal-setting techniques for healthy eating; fitness: defining components of fitness and exploring options in fitness programming; and stress management: learning techniques for dealing positively with stress. The objective of the course is to teach students that they are responsible for their total well-being. 1 credit

## PE 137 Self-Defense for Women

Introduction to the basic fundamental kicking, blocking, and punching techniques of self-defense designed specifically for women. Volunteer simulation exercises conclude the course. 1 credit

## PE $140 \quad$ Weight Training

Introduction to proper techniques for lifting weights to increase strength, flexibility, and endurance. Progress in the course will be self-paced. 1 credit

## PE 150 Introduction to Yoga

Introduction to the systematic approach and proper form of exercise known as yoga. Warming up, stretching, and the releasing of muscle tension will reduce stress, increase blood circulation, and improve both physical and mental health. 1 credit

## PE $200 \quad$ Varsity Sports

College credit for student athletes participating in the varsity sports of basketball, soccer, cross-country, softball, tennis, and volleyball. Students must register for this course with approval from the director of athletics. Students must try out for the team and meet all requirements for team participation as determined by the head coach. 1 credit

## PE 221 Advanced Aquatic Fitness

Advanced workout for those who have completed PE 121 Aquatic Fitness. The course will provide an opportunity to improve muscular strength and endurance, flexibility, and cardiovascular endurance through water aerobics utilizing aquatic equipment and choreography. 1 credit

## PE 240 Advanced Weight Training

Advanced skills and techniques in weight training and conditioning. Class consists of weight training through use of free weights and equipment. A portion of each class includes cardiovascular exercise. Progress in the course will be self-paced. 1 credit

## STUDY ABROAD

Study abroad provides students with a hands-on, international experience that enhances their academic career at Carlow. Studying abroad enriches a student's global perspective and makes for a well-rounded, highly competitive college graduate. Furthermore, study abroad allows for individual growth, independence, and expanded views and ways of thinking about our increasingly global world.

## COURSE DESCRIPTIONS

## SB 100R Introduction to Philosophy

Introduction to the history and problems of philosophy. Philosophers from Plato to contemporary thinkers such as Descartes, Sartre, Marx, Kierkegaard, Augustine Aquinas, and others will be covered. The course is designed to grant a general overview of the development of the philosophic tradition of the West. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## SB 101R Religion and Human Experience

A study of the dynamics of human experience and the religious understanding of God as mystery. The course also explores the human experience of grace, love, prayer, sin, and salvation. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## SB 102R Political Philosophy

Overview of key figures in political philosophy such as Plato, Aristotle, Locke, Hobbes, Marx, and Machiavelli. The goal will be to relate the theories of these crucial thinkers to contemporary political issues of the day and see how their thought has shaped the understanding of political concerns. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

SB 103R Philosophy of Human Existence
Introduction to fundamental ideas in history of philosophy leading to existentialism. Such thinkers as Nietzsche, Heidegger, Sartre, Kierkegaard, and others will be discussed and studied in order to grasp a sense of how their thought has influenced the philosophy of the present era. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## SB 105R Introduction to Moral Reasoning

Investigation of the history of ethics and its pertinence to contemporary morality. The course will focus on the traditional ethical theories of such thinkers as Plato, Aristotle, Aquinas, Augustine, Kant, Hume, Mill, Sartre, Marx, and others. It will also examine contemporary ethical issues as they relate to the history of ethical philosophy. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## SB 110R Emergence of the Modern West

A survey of several centuries of Western history. An introduction to major developments, figures, tendencies, and terms.
3 credits FULFILLS HISTORY LAI REQUIREMENT.

SB 114R
Philosophy of Law, Punishment, and Rights
3 credits

## SB 113R The Irish Experience

This course provides an introduction to Irish life and culture for international students at Carlow College in Ireland. Classroom presentations and discussions are integrated with guided and independent field trips to provide students with both the tools to appreciate Irish culture and opportunity to gain access to that culture during their semester in Ireland. 3 credits
FULFILLS GLOBAL REQUIREMENT.

## SB 122R Lifespan Development

An examination of the patterns of growth, change, and stability in behavior that occur across the human lifespan. Starting with conception, the course explores the biological, psychosocial, and cognitive theories that help us observe and explain human behavior from life's beginnings through the end of life. 3 credits
FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## SB 151R Search for Human Values

An introduction to Christian moral theology, along with an examination of theories about value formation, the development of personal conscience, and the relationship of religious faith to ethical decision making. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## SB 143R The Church as a Developing Community

A consideration of biblical, historical, and theological questions about the Church. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## SB 152R Introduction to Sociology

A general survey of sociological concepts aimed at a basic understanding of modern society and its complexities. Culture, society, and individuals are studied within the framework of social institutions. The emphasis is on the interaction between the individual and society. 3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## SB 190R Major World Religions

A theological approach to Hinduism, Buddhism, Judaism, Christianity, and Islam with a particular emphasis on the prospects of dialogue between Christianity and the other major religions. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## SB 209R Abnormal Psychology

An overview of psychological disorders. Diagnosis, etiology, and modern treatments are explored. A bio-psycho-social perspective is emphasized with special attention given to the Diagnostic and Statistical Manual of Mental Disorders: 4th edition. 3 credits

## SB 210R Western Culture

A study of major dynamics of the North Atlantic world. Focus on significant ideas, figures, practices, texts, institutions, or issues. Methodologies to investigate historical problems. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## SB 211R Women and Creativity

An interdisciplinary approach to how women have been valued for their creativity and how women value and express their own creativity. The course takes a broad cultural approach to creativity and innovation across the disciplines. 3 credits
FULFILLS WOMEN'S STUDIES LAI AND GLOBAL REQUIREMENTS.

## SB 213R Europe since World War II

A study of the reconstruction of European politics and society after 1945: emergence of Cold War in Europe; decolonization; economic cooperation and development; East-West relations; and the end of the Cold War. 3 credits

## SB 215R Family and Society

An overview of the family as a social institution. The emphasis is on diversity in families in our own society and across cultures. Topics include marriage, parenthood, aging and widowhood, and problems within the family such as poverty and violence. 3 credits
FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## SB 238R Shakespeare's Sisters

This course explores the women writers of 16th, 17th, and 18th century England. Students read drama, poetry, essays, and other texts related to these fascinating women who blazed a trail for later women writers. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## SB 240R Studies in the Novel

3 credits

## SB 241R Jesus: The Human Face of God

An examination of the historical, developmental, and contemporary theological issues concerning Jesus of Nazareth. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## SB 242R Social Psychology

An exploration of the behavior of the individual in the context of multiple social influences and groups (family, school, neighborhood, and society at large). Topics include: social perception and cognition; attitude and attitude change; attraction, affiliation and love; pro-social and antisocial behavior; violence and aggression; prejudice and discrimination; and stereotyping, sex roles, and public opinion. 3 credits

## SB 270R Survey of English Literature I

This class provides an introduction to major works of English literature from Beowulf to the mid-18th century. Students analyze works in relation to their historical/cultural contexts and practice critical writing about the works. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## SB 285R Introduction to Counseling

An introduction to the basic principles of and various approaches toward counseling. Emphasis on supervised role playing and on how to begin to become therapeutically effective. 3 credits
THIS COURSE IS A PREREQUISITE FOR ALL OTHER COUNSELING COURSES-PY 380, PY 382, PY 384, PY 430 AND PY 488

## SB 308R Philosophy and Psychology

A study of emotions and symptoms, mind and body, as well as other problems shared by philosophers, psychologists, and post-Freudian feminists. The course will also examine traditional psychological theories as espoused by Plato, Aristotle, Nietzsche, Frankl, Freud, and Sartre, as well as reference to the Christian philosophic tradition. 3 credits

## SB 309R Comparative Politics

An examination of the nature of various institutions and structures, processes, and issue areas involved in contemporary European and EU politics. The accomplishments and failures of governments and how the study of comparative politics can advance our understanding of the world today are examined. 3 credits
FULFILLS GLOBAL REQUIREMENT.

## SB 310R Special Topics: Theology

A very focused course on a particular theological topic. Designed specifically for theology majors/minors. Open to all majors with adequate background. 3 credits

## SB 311R Irish Literature

This study of drama, fiction, and poetry by Irish writers examines the cultural/historical contexts for the works. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## SB 318R Romantic Writers

3 credits

## SB 320R Modern British Writers

This course explores novels, poetry, and drama by 20th century British writers and post-colonial writers, including Woolf, Eliot, Joyce, and Lawrence. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## SB 354R Feminist Philosophy

A study of philosophies of women and women's philosophies such as those of Woolf, deBeauvoir, Chodorow, Gilligan, and post-structural feminists. The course is designed to examine the development and impact of feminist thought and theory in contemporary society. 3 credits

SB 355R Special Topics in American History
Topics vary. 1 to 4 credits

## SB 380IR Special Topics in Women's History <br> Topics vary. 1 to 4 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

## SB 392R/393R Special Topics in European History Topics vary. 1 to 4 credits

## SB 395R/396R Special Studies in European History Topics vary. 1 to 4 credits

## SB 104R The Uses of Drama

## SB 111R Humans and Other Animals

The aim of this module is to explore the relations between humans and non-human animals. It will do so through two lenses; moral and psychological. 3 credits

## SB 112R Critical Theory

This course aims to introduce students to the key thinkers, concepts, and ideas associated with critical theory in terms of the Frankfurt School and the broader notion of the critical theory as it applies to other disciplines. 3 credits

## SB 212R Gerontology

The purpose of this course is to help students develop skills, knowledge, and information in relation to aging in society; to promote understanding of the influence of health and social policies on the lives of older people; to provide professional knowledge in respect of planning and provision of services for older people in a range of areas; to understand the biological, psychological and social components of gerontology; and to develop a critical perspective on growing older. 3 credits

## SB 250E Youth and Community

This module will introduce the student to youth and community work and to the definitions, history, development, approaches, policies, methods, styles, and skills associated with those disciplines.

## 3 credits

## SB 251R Advanced Child Care

The goals of this course are to provide a comprehensive theoretical framework for understanding and analyzing the development needs of children and young people; to develop cultural competence, taking account of social, ethnic, and cultural differences; to foster a child-centered approach to professional social care practice where the child's perspective remains central and the child's experience valued; to encourage a practice perspective which recognizes and builds on strengths as well as identifying difficulties; and to promote understanding of the personal resources required from the practitioner to provide warm, sensitive, and nourishing child care to children with emotional and behavioral problems. 3 credits

## SB 252R Management and LeadershipTheory and Practice

This course will promote students' understanding of key theoretical perspectives and conceptual frameworks of management and leadership; equip them with core skills of effective management and leadership; and develop their capacity to perform management and leadership tasks in professional social care agencies. 3 credits

## SB 253R Disability Studies

This module aims to engage students with the concept of disability in contemporary society. Following an outline of the sociological history of disability, students are introduced to a wide range of issues such as eating disorders, deliberate self-harm, mental health in Irish prisons, and personality disorders. Students retain a solid focus on conditions such as intellectual disability, physical disability, autism, anxiety disorders, and depression. 3 credits

## SB 254R Communication and Counseling Skills

This course prepares students for professional practice in social care settings, provides them with a competency and fluency across a broad spectrum of counseling and psychotherapy theories, and helps them toward a heightened sense of self-awareness so as to be able to work in an ethical, client-centered, and empowering manner. 3 credits

## SB 255R Legal Studies II

This class will deal with legal issues that students will encounter on a day-to-day basis in a work environment. It will enable students to understand the legal system and law relating to child care and family law and inform them of the most recent legislation and how it affects current practices in social care. 3 credits

## SB 256R Communication and People Skills

This module aims to introduce students to the effective communication skills required within professional social care practice. 3 credits

## SB 257R Principles and Practice 1

This module aims to introduce students to the professional social care role. Through engagement in dialogue with professionals, personal reflection, and group work, students are encouraged to gain a sense of their "professional self." A key aim is that students gain an understanding of the professional context in which they will work in future. 3 credits

## SB 356R Philosophy of Science

The aim of this module is to provide students with an overview of the history of feminist political thought, and a survey of contemporary feminist positions in political philosophy. 3 credits

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\begin{aligned}
& \text { COLLEGE OF } \\
& \text { LEARNING AND } \\
& \text { INNOVATION }
\end{aligned}
$$

## MAJORS

## ART

ART THERAPY PREPARATION
ART WITH ART EDUCATION CERTIFICATION (K-12)
ART WITH A CONCENTRATION IN:

- ART HISTORY
- CERAMICS
- GRAPHIC DESIGN
- WEB DESIGN AND INTERACTIVE MEDIA
- MEDIA ARTS AND ANIMATION
- PAINTING AND DRAWING
- PHOTOGRAPHY


## MINORS

ART
ART HISTORY
ART THERAPY PREPARATION
CERAMICS
PAINTING

## COLLEGE OF LEARNING AND INNOVATION - ART DEPARTMENT


#### Abstract

ART MAJOR

The art major provides a strong foundation in art history and in studio art: design, drawing, painting, printmaking, ceramics, computer art, and sculpture. Electives and directed study in a variety of media include fiber arts, ceramics, drawing, painting, and mixed media.

Senior Project, an individual project and study course, is required for all majors, while a senior exhibition required of art, painting and drawing, and ceramics concentrations is open to all seniors. Other specialized advanced and tutorial courses are also offered. Combining an art major with minors in business or communication offers viable career opportunities in advertising, communication, and arts administration.


## Major Requirements: 46 credits

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 227, AR 240, AR 311, AR 315, AR 321, AR 331SL, AR 355, AR 421, WS 209, and four art focus concentrations.

## ART MINOR

The art minor requires a minimum of 18 credits. At least nine credits must be taken at Carlow.

## Required Courses:

AR 101 or AR 102, AR 111 or AR 115, plus four AR electives.

## ART THERAPY PREPARATION MAJOR (SEE PAGE 124)

Art therapy preparation is an interdisciplinary major sponsored by the art and psychology departments. This program prepares the student for further study in art therapy on a graduate level. The program integrates a strong fine arts background with an in-depth study of psychology and art therapy. Because of Carlow's urban location in the heart of a major medical and therapeutic complex, students have convenient access to observation and practicum experiences.

## Major Requirements:

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 224, AR 227, AR 240, AR 315, AR 321, AR 311, AR 330, AR 331SL, AR 355, AR 421, AT 205, AT 339, AT 406 or PY 450, AE 326, PY 101, PY 122, PY 203, PY 209, PY 285, WS 209.

## ART THERAPY PREPARATION MINOR

## Minor Requirements:

AR 111 or AR 115, AR 331, PY 203, PY 285, AT 205, AT 339. At least nine credits must be taken at Carlow.

## ART WITH ART EDUCATION CERTIFICATION

Art with art education certification is a professional program offered in conjunction with the Education Department. It requires a minimum of 44 credits in art and a series of required courses in education and art education. Upon successful completion of the program, the student may receive certification from the Pennsylvania Department of Education as a teacher of art, grades K through 12.

## Major Requirements: 42 credits

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 227, AR 240, AR 315, AR 321, AR 330, AR 331SL, AR 355, AR 421, WS 209.
See Education Department on page 56.

## ART HISTORY CONCENTRATION

The art history concentration is in many ways unique in that it is a studio-based program which gives the student experience in the role of creator. Ideal as an introduction to a career in art in both theory and practice, the major is worked out with the help of the student's advisor. Career options include graduate work (master's and doctoral levels) in art history, museum work, conservation and preservation, and arts administration.

## Major Requirements: 51 credits

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 227, AR 240, AR 311, AR 315, AR 330, AR 331SL, AR 355 or AR 321, AR 421, WS 209, plus three additional art history courses.

## ART HISTORY MINOR

## Minor Requirements:

AR 101, AR 102, AR/WS 209, plus three additional art history courses. At least nine credits must be taken at Carlow.

## CERAMICS CONCENTRATION

The ceramics concentration gives the student who has a strong interest in the ceramic arts a solid foundation in two dimensional art, sculpture, and ceramics. The student goes on to spend six semesters in Advanced Ceramics Studio exploring various ceramic materials, kilns, and techniques as determined through a dialogue between student and professor.

## Major Requirements: 48 credits

AR 101, AR 102, AR 111, AR 115, AR 221, AR 240, AR 311, AR 315, AR 321, AR 331SL, AR 355, AR 421, WS 209, plus six semesters of Advanced Ceramics Studio.

## CERAMICS MINOR

## Minor Requirements:

AR 115, AR 315, AR 331, plus three semesters of Advanced Ceramics Studio. At least nine credits must be taken at Carlow.

## PAINTING AND DRAWING CONCENTRATION

The painting and drawing concentration offers the student a solid foundation in two- and three-dimensional art. The student goes on to spend six semesters in a more in-depth study of painting. During this time more advanced issues concerning two-dimensional art and concept development are explored.

## Major Requirements: 51 credits

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 227, AR 240, AR 311, AR 315, AR 321, AR 355, AR 421, WS 209, plus five semesters of Painting Studio.

## PAINTING MINOR

## Minor Requirements:

AR 111, AR 114, AR 227, plus three semesters of Advanced Painting Studio.

## AFFILIATE PROGRAMS WITH THE ART INSTITUTE OF PITTSBURGH

GRAPHIC DESIGN CONCENTRATION
WEB DESIGN AND INTERACTIVE MEDIA CONCENTRATION
MEDIA ARTS AND ANIMATION CONCENTRATION
PHOTOGRAPHY CONCENTRATION

In today's ever-changing world, technical proficiency alone is rarely enough for success. Concentrations in graphic design, media arts and animation, interactive media design, and photography are offered in collaboration with the Art Institute of Pittsburgh (AIP). They combine the strength of a diverse liberal arts education and a strong art foundation gained at Carlow with a concentration at the state-of-the-art computer studios of a leading technical arts school. Students in these programs go beyond mere technical proficiency to a well-rounded education.

Major Requirements: $\mathbf{2 5}$ credits + $\mathbf{3 0}$ Carlow credit equivalents at AIP
AR 101, AR 102, AR 111, AR 221, AR 227, AR 240, AR 311, AR 330, AR 421, WS 209, plus 30 Carlow credit equivalents at the Art Institute of Pittsburgh, as specified by the program undertaken.

## MAJORS

## BIOLOGY

- WITH AUTOPSY SPECIALIST CONCENTRATION
- WITH CERTIFICATION IN PERFUSION TECHNOLOGY
- WITH CONCENTRATION IN HUMAN BIOLOGY
- WITH SECONDARY EDUCATION CERTIFICATION IN BIOLOGY (GRADES 7-12)
- WITH SECONDARY EDUCATION CERTIFICATION IN GENERAL SCIENCE (GRADES 7-12)


## MINORS

BIOLOGY

## DUAL-DEGREE PROGRAMS

BIOLOGY/BIOTECHNOLOGY
(4+1 DUAL-DEGREE PROGRAM WITH
DUQUESNE UNIVERSITY)

BIOLOGY/ENVIRONMENTAL SCIENCE
AND MANAGEMENT (3+2 DUAL-DEGREE
PROGRAM WITH DUQUESNE UNIVERSITY)

## COLLEGE OF LEARNING AND INNOVATION - BIOLOGY DEPARTMENT

## DEPARTMENT ACADEMIC POLICIES

The following policies apply to students in all programs offered through the Biology Department.

At all times, the student must maintain a cumulative Grade Point Average (GPA) of 2.0 in the program's required and support courses (biology, chemistry, mathematics, and physics). If, at the end of any subsequent semester, the student's program GPA falls below 2.0, the student is placed on program probation. A student on program probation is prohibited from taking additional program courses until the student retakes the program course(s) in which the lowest grade(s) was received in order to reestablish the minimum program GPA of 2.0.

Biology students are prohibited from taking any program course if a grade of $D+$ or lower was received for the prerequisite course(s). Students must retake the prerequisite course and attain a grade of C - or better before taking the subsequent course.

## BIOLOGY MAJOR

The biology curriculum at Carlow University enables students to prepare for the variety of careers available in today's biological sciences. It gives students a solid foundation across the entire breadth of biology, while affording students ample opportunities to delve deeply into their chosen specialties in order to prepare for successful careers in one of biology's many fields.

## Requirements for Bachelor of Science Degree in Biology:

The Foundations courses (BIO 110 and BIO 120), General Ecology (BIO 255), Genetics (BIO 250), Junior Seminar (BIO 300), Senior Experience (BIO 498 and BIO 499), and four advanced biology electives are required. At least two of the electives plus Junior Seminar and Senior Experience must be taken in residence at Carlow University.

## Required Support Courses:

Four semesters of chemistry (CHM 111/113, CHM 112/114, CHM 211/213, and CHM 212-/214), two semesters of physics (PCS 201/203 and PCS 202/204) and mathematics through calculus I (MAT 160) are required

NOTE: STUDENTS ENTERING CARLOW UNIVERSITY IN FALL 2013 WITH THE BIOLOGY MAJOR AND CONCENTRATION IN HUMAN, MOLECULAR/CELL, OR ORGANISMAL/ECOLOGY WILL FOLLOW THE CATALOG REQUIREMENTS FOR THE BIOLOGY MAJOR. ACADEMIC ADVISORS IN THE BIOLOGY DEPARTMENT WILL WORK WITH STUDENTS TO SELECT COURSES THAT FOLLOW THE PROGRAM OF STUDY FOR STUDENTS IN ONE OF THE AFOREMENTIONED CONCENTRATIONS.

## BIOLOGY MINOR

A minor in biology prepares graduates in such fields as professional writing, business management, communications, psychology, and social work for positions within organizations in the medical, pharmaceutical, and biotechnology industries.

## Requirements for Biology Minor:

BIO 110 and BIO 120, or their transferred equivalents, plus three advanced biology electives are required for the biology minor. At least two of these courses must be taken in residence at Carlow University. A minimum of 18 total credits are required to complete the minor

## AUTOPSY SPECIALIST CONCENTRATION

This program combines a Bachelor of Science degree in biology with a concentration in autopsy specialist training. All requirements for the BS degree are completed within the traditional four academic years, but students in this program will also complete courses designed to prepare them for careers as autopsy specialists and forensic investigators. A minimum GPA of 3.0 at the end of the student's sophomore year is required in order to enter into the practicum courses of the junior year.

## Requirements for Bachelor of Science in Biology with Autopsy Specialist training:

Candidates must satisfy all requirements for the Bachelor of Science degree in biology with the following modifications: Introduction to Forensic Death Investigation and Anatomy and Physiology I and II are required. Pharmacology and Microbiology are recommended courses, but are not required. The autopsy specialist courses will qualify as upper level elective biology courses, and the senior externships will satisfy the Senior Experience (BIO 498 and BIO 499) requirement.

## HUMAN BIOLOGY CONCENTRATION

Students concentrating in human biology are prepared to enter professional training in all areas of human health care: medicine, dentistry, optometry, osteopathy, physician's assistant, physical therapy, pharmacy, and podiatry. Elective courses in human biology include BIO 203, BIO 280SL, BIO 310, BIO 339, and BIO 357.

## CERTIFICATION IN PERFUSION TECHNOLOGY

In cooperation with UPMC Shadyside Hospital, Carlow offers a four-year program leading to a Bachelor of Science degree in biology with certification in perfusion technology. Perfusionists, who are also known as extracorporeal circulation specialists, are technicians whose primary function is the operation of the cardiopulmonary bypass machine during open heart surgery. The perfusion technology program requires three academic years at Carlow as a biology major with a 2.80 minimum GPA ( 3.0 in the sciences), and 17 months of clinical training at UPMC Shadyside which replaces the traditional senior year.

NOTE: CARLOW UNIVERSITY DOES NOT GUARANTEE ADMISSION TO THE PERFUSION TECHNOLOGY PROGRAM. ADMISSION IS ON A COMPETITIVE BASIS.

## Requirements for Bachelor of Science in Biology with Certification in Perfusion Technology:

Candidates must satisfy all requirements for the Bachelor of Science degree in biology, with the following modifications: Anatomy and Physiology I and II are required and Microbiology, Pharmacology, and Biomedical Ethics are recommended. One biology course is waived, as is Senior Experience (BIO 498 and BIO 499). The fourth year of courses is determined by the School of Cardiovascular Perfusion of UPMC Shadyside Hospital.

## SECONDARY EDUCATION CERTIFICATION IN BIOLOGY

## Requirements for Bachelor of Science in Biology with Certification in Secondary Education:

Candidates must satisfy all requirements of the Bachelor of Science degree in biology. The biology electives will be chosen in consultation with a faculty advisor to represent the breadth of the biological sciences. We recommend taking two additional courses in the earth and space sciences for students interested in general science certification. Students are also required to serve as laboratory assistants for one semester to receive training in laboratory design, development, and evaluation. Students must also meet the requirements for secondary education certification as outlined by the Education Department.

## BIOLOGY/BIOTECHNOLOGY DUAL-DEGREE PROGRAM (DUQUESNE UNIVERSITY)

Carlow University students majoring in biology may combine a Bachelor of Science degree with a Master of Science degree in collaboration with Duquesne University Bayer School of Natural and Environmental Sciences. Students complete required molecular/cellular biology courses at Carlow University and qualified students apply for admission to the Master of Science program.

After the first four years of study, students will have earned a Bachelor of Science in biology from Carlow University. After completion of the fifth year at Duquesne University, students will have earned a Master of Science in biotechnology. Examples of courses taken in the Master of Science degree program include Elements of Biotechnology, Biotechnology Leadership, Ethics in Biotechnology, and Bioanalytical Chemistry. Students completing this program will have the added expertise and training for careers in industry, government, and academia.

## BIOLOGY/ENVIRONMENTAL SCIENCE AND MANAGEMENT

DUAL-DEGREE PROGRAM (DUQUESNE UNIVERSITY)

In collaboration with Duquesne University's Bayer School of Natural and Environmental Sciences, Carlow students interested in applied ecology may complete a five-year Bachelor of Science/Master of Science program. Students complete required biology/organismal biology and ecological courses in residence at Carlow. During the third academic year, qualified students apply for admission to the Master of Science program. Those admitted complete their fourth and fifth years in residence at Duquesne University.

At the conclusion of the fourth year, students will have earned a Bachelor of Science in biology from Carlow. Upon completion of the fifth year, students will have earned a Master of Science degree in environmental science and management from Duquesne University. Examples of courses taken in the master's degree component include environmental microbiology, environmental toxicology, air quality, business ethics, environmental management, and environmental law. The students graduating in this collaborative program are broadly trained scientists. They have the same credentials as other biology students and can pursue those relevant careers. Additionally, with the master's degree training, students have the skills required for careers in industry, regulatory agencies, academia, and the public policy arena.

## MAJORS

CHEMISTRY

- WITH SECONDARY EDUCATION/ CHEMISTRY CERTIFICATION


## MINORS

CHEMISTRY

## CHEMISTRY DEPARTMENT

## COLLEGE OF LEARNING AND INNOVATION - CHEMISTRY DEPARTMENT

## DEPARTMENT ACADEMIC POLICIES

The following policies apply to students in all programs offered through the Chemistry Department.

At all times after the completion of the student's fourth course required within the major li.e. biology, chemistry, mathematics, and physics courses), the student must maintain a cumulative Grade Point Average (GPA) of 2.0 in the program's required and support courses. If, at the end of any subsequent semester, the student's program GPA falls below 2.0, the student is placed on program probation. A student on program probation is prohibited from taking additional program courses until the student retakes the program course(s) in which the lowest grade(s) was received in order to reestablish the minimum program GPA of 2.0

Students are prohibited from taking any chemistry program course if a grade of $D+$ or lower was received for the prerequisite course(s). Students must retake the prerequisite course and attain a grade of C - or better before taking the subsequent course.

## CHEMISTRY MAJOR

The course of study in chemistry at Carlow University is designed to provide the theory and research skills needed by every chemist. Chemists find jobs in a wide variety of areas across industry, academia, and government. A chemistry degree also prepares the student for graduate or professional school. The major program curriculum is designed to be consistent with the guidelines published by the American Chemical Society (ACS). The program provides instruction in each of the four major subdisciplines of chemistry: organic chemistry, analytical chemistry, physical chemistry, and inorganic chemistry. Laboratory skills are emphasized throughout. Students are also required to further develop their skills by completing a senior experience that may consist of an independent research project. Each student must also complete required support courses in mathematics, biology and physics. Students who are seeking employment in some of the nontraditional areas can choose a program with an emphasis in biology, marketing and management, technical communications, or math and computer science. Students interested in teaching at the high school level can choose an emphasis in secondary education that leads to a degree in chemistry with teaching certification.

## Requirements for Bachelor of Science in Chemistry:

Chemistry majors are required to complete the following chemistry core courses: General Chemistry (CHM 111/113 and CHM 112/114), Organic Chemistry (CHM 211/213 and CHM 212/214), Quantitative Analysis (CHM 312), Inorganic Chemistry (CHM 311), Physical Chemistry (CHM 411 and CHM 412) and Advanced Experimental Techniques (CHM 423). Each student must also complete Junior Seminar (CHM 398 and CHM 399) and Senior Experience (CHM 498 and 499), as well as two electives, depending on program emphasis. (At least three of the required chemistry core courses plus Junior Seminar and Senior Experience must be taken in residence at Carlow University.)

## Required Support Courses:

Each student must complete Mathematics through Calculus III (MAT 160, MAT 260, MAT 360), Physics with Calculus (PCS 221/223 and PCS 222/224), Foundations of Molecular and Cell Biology (BIO 120), and Computer Applications for Science and Mathematics (CHM 151I).

## CERTIFICATION IN SECONDARY EDUCATION IN CHEMISTRY

Secondary education candidates must complete the chemistry major and meet the requirements in secondary education certification as outlined by the Education Department. Students are also required to serve as laboratory assistants for one semester to receive training in laboratory design, development, and evaluation.

## CHEMISTRY MINOR

## Requirements for Chemistry Minor:

General Chemistry (CHM 111/113 and CHM 112/114) and Organic Chemistry (CHM 211/213 and CHM 212/214) and Calculus I (MAT 160).

## Electives:

Five credits in 200 level or higher chemistry courses.

## MAJORS

EARLY CHILDHOOD EDUCATION (PREK-4)
EARLY CHILDHOOD EDUCATION WITH
CERTIFICATION (PREK-4)
EARLY DEVELOPMENT AND LEARNING MIDDLE LEVEL EDUCATION (4-8)

- WITH SCIENCE CERTIFICATION
- WITH SOCIAL STUDIES CERTIFICATION
- WITH ENGLISH/LANGUAGE ARTS CERTIFICATION
- WITH MATHEMATICS CERTIFICATION
- WITH SOCIAL STUDIES AND SCIENCE CERTIFICATIONS
- WITH SOCIAL STUDIES AND MATHEMATICS CERTIFICATION
DEPARTMENT


## COLLEGE OF LEARNING AND INNOVATION - EDUCATION DEPARTMENT

## SCHOLAR-PRACTITIONER

Education of scholar-practitioners is the vision guiding all professional programs at Carlow University. At Carlow, scholar-practitioner is more than a professional role and goes beyond the acquisition of specific skill sets or application of best practices. Scholar-practitioner is a way of being in and relating to the world. Those who embody the stance of scholar practitioner understand that teaching is a daunting task and a challenging endeavor. It is a vocation, that when taken seriously, demands moral vision and intellectual rigor. At Carlow we believe that scholarpractitioners in the professional field of education embody six intertwining qualities-metacognitive reflection, theoretical understanding, pedagogical wisdom, contextual literacy, ethical stewardship, and aesthetic imagination.

Graduates of all undergraduate and graduate programs of study in the Education Department will be able to embody the qualities of a Carlow scholar-practitioner as manifested by their capacity for metacognitive reflection, theoretical understanding, pedagogical wisdom, contextual literacy, ethical stewardship, and aesthetic imagination.

Graduates of all undergraduate and graduate programs of study in the Education Department will demonstrate the ability to be reflective in action, capable of creating and serving in High Performance Learning environments, and who support and respect the dignity and diversity of all learners.

## ADMISSION TO EDUCATION PROGRAMS

To be fully admitted to the Education Department, students must have the following:

- 48 credits
- A GPA of 3.0
- Two college math courses
- Two college English courses (one literature and one composition)
- Passing score on the PAPA exams


## FIELD EXPERIENCE REQUIREMENTS

- Appropriate and current health clearances, criminal history background checks, child abuse history clearance, federal criminal history records (CHRI)


## STUDENT TEACHING REQUIREMENTS

To be accepted for student teaching, students must have:

- A GPA of 3.0
- Appropriate and current health clearances, criminal history background checks, child abuse history clearance, federal criminal history records (CHRI)
- A completed student teaching application


## CERTIFICATION REQUIREMENTS

All candidates for certification must maintain a minimum cumulative GPA of 3.0. A teacher candidate who has not met this minimum academic level will not be placed in student teaching. Students must earn a C or higher in all major courses. If students earn C- or below in a major course, they will have to retake the course.

The Pennsylvania Department of Education has approved the instructional programs in each area of certification. Students completing these approved programs must pass the required Pennsylvania Educator Certification Tests (PECT) or PRAXIS II examinations for their certification areas. These examinations are required for every person applying for Pennsylvania certification, no matter where that person has completed a teacher preparation program. Students who plan to teach in states other than Pennsylvania should ascertain testing and other special requirements in those states no later than their junior year at Carlow.

All students are responsible for applying for Pennsylvania Level I instructional certification upon completion of the Carlow University program and passing the required examinations. The student must pay all fees for certification. Any questions regarding testing and certification should be directed to the Education Department Certification Office.

## ART EDUCATION CERTIFICATION

Art teachers are prepared to teach children from kindergarten through grade 12. Students major in art complete a professional sequence in art education.

The art teacher candidate will:

- Demonstrate their knowledge of the fundamental concepts of the arts and competence in teaching K-12 grade students two-and three dimensional art, art history, criticism and aesthetics.
- Establish an environment that is purposeful and equitable with high expectations of students both in work and conduct by maintaining a supportive relationship with all students by instilling a belief that they can succeed in art education.
- Utilize knowledge of content and pedagogical theory to engage K-12 grade students in learning art content through a variety of strategies ranging from simple reproductions, and graphic demonstrations to "essay-style" homework, class exhibitions, projects, and utilizing traditional tools as well as modern technologies.
- Use a variety of means, providing feedback to K-12 grade students to assist learning and adjust instructional strategies.
- Demonstrate qualities of a scholar-practitioner within and beyond the classroom, with students and colleagues as well as members of the community.


## Requirements:

ED 200, ED 282, ED 307, PY 101, PY 205, PY 206, SPED 230, SPED 360, SPED 451, AE 326, AE 327, AE 409, AE 410, and ED 370.

## Art Sequence for Art Education Certification:

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 227, AR 240, AR 315, AR 321, AR 330, AR 331SL, AR 355, AR 421, and WS 209.

## EARLY CHILDHOOD EDUCATION MAJOR/CERTIFICATION

The Early Childhood Education program at Carlow University focuses on educating children from birth to grade four in any context-school, family, or community. As a signature mark of the program, students learn how to honor diversity and form strong inclusive relationships between child and caregiver/teacher. They learn that a child's environment needs to be rooted in trust; physically and psychologically safe. They learn that the caregiver/teacher relationship needs to be collaborative and characterized by advocacy for the child. Principles of child development and constructivist approaches to learning ground the program along with the belief that strong relationships among the child, family, and community form a healthful child who has the necessary foundation to succeed in a 21 st century and beyond.

The program uses the National Association for the Education of Young Children (NAEYC) guidelines for ethical behavior to demonstrate professionalism. Competencies for early childhood education are based on current research and child development theory, NAEYC standards and guidelines, and the pedagogy of relationship.
Early childhood teaching candidates will:

- Develop pedagogical wisdom and contextual literacy as they apply their understanding of young children's development, motivation, characteristics, and influences on children's development and learning to create environments that are healthy, respectful, supporting, and challenging of young child.
- Develop into ethical stewards who know and understand diverse family and community characteristics; support, engage, and involve families and communities though respectful relationships to support children's development and learning.
- Be able to effectively and appropriately use a variety of assessment tools lincluding observation, informal, summative, formative, diagnostic, and benchmark) to plan appropriate curriculum for young learners based on a deep level of theoretical understanding.
- Develop a theoretical understanding of early learning standards, common core, and child development to design, implement, and evaluate meaningful and challenging curricula for each child.
- Demonstrate qualities of reflective scholar practitioners who engage in a variety of communities of practice to become informed and ethical advocates and leaders in the field of education.
- Create high performance learning environments for diverse student populations (which include children with disabilities, English language learners, children in poverty, etc.) through aesthetic expression and imagination.


## Major Requirements:

EC 200, EC 201, EC 206, EC 207, EC 303, EC 304, EC 307, EC 311, EC 313, EC 318, EC 325, EC 401SL, EC 403, EC 406, EC 407, ED 200, ED 305, ED 307, ED 312, ED 370, SPED 230, SPED 332, SPED 450, and two math (quantitative reasoning and MAT 110 or higher) and two English courses (one composition course and one literature course).

## EARLY DEVELOPMENT AND LEARNING MAJOR (WITHOUT TEACHING CERTIFICATION)

The Early Development and Learning program follows the Early Childhood Education program with the exception of the student teaching experience. Early development and learning majors take part in an internship. Students of this major are not eligible for teaching certification.

The Early Childhood Education program at Carlow University focuses on educating children from birth to grade four in any context-school, family, or community. As a signature mark of the program, students learn how to honor diversity and form strong inclusive relationships between child and caregiver/teacher. They learn that a child's environment needs to be rooted in trust; physically and psychologically safe. They learn that the caregiver/teacher relationship needs to be collaborative and characterized by advocacy for the child. Principles of child development and constructivist approaches to learning ground the program along with the belief that strong relationships among the child, family, and community form a healthful child who has the necessary foundation to succeed in a 21 st century and beyond.

The program uses the NAEYC guidelines for ethical behavior to demonstrate professionalism. Competencies for early childhood education are based on current research and child development theory, NAEYC standards and guidelines, and the pedagogy of relationship.

Major Requirements:
EC 200, EC 201, EC 206, EC 207, EC 303, EC 304, EC 307, EC 311, EC 313, EC 318, EC 401SL, ED 200, ED 305, ED 307, ED 312, EC 415; nine credits, special education, education, or human development psychology electives; SPED 230, SPED 332, SPED 450, two math (quantitative reasoning and MAT 110 or higher) and two English courses (one composition and one literature).

## MIDDLE LEVEL EDUCATION MAJOR/CERTIFICATION

The Middle Level Education program prepares prospective teachers of 10- to 14-year-old students, grades four through eight, in the content areas of English/language arts, social studies, science, and math. They will become experts in the development of young adolescents and apply this knowledge in numerous field experiences beginning with observation and progressing to planning and teaching small groups and whole classes. Teacher candidates will have a thorough knowledge of their chosen subject area, pedagogy, and the interrelationships among the subject disciplines. As they learn to become life-long learners, they learn to inspire life-long learning in students. They will learn to plan, teach, and assess student work using a variety of strategies. Teacher candidates will learn to use technology for planning, instruction, and assessment. The field experiences will provide prospective middle level teachers opportunities with diverse learners. These experiences will enrich their developmental knowledge and understanding of the purpose and organization of middle schools.

Middle level teaching candidates will:

- Apply her/his understanding of major concepts and theories and research on young adolescent development, motivation and learning styles as s/he develops and implements learning experiences using evidenced-based methodology of the content areas of English,math, science, and social studies.
- Establish an environment that is purposeful and equitable with high expectations of students both in work and conduct by maintaining a supportive relationship with all students.
- Utilize knowledge of content and pedagogical theory to engage young adolescents in learning content including metacognitive reflection.
- Use multiple assessments, e.g. authentic, screening, diagnostic, formative, benchmark and summative assessments for instructional and intervention purposes for young adolescents.
- Demonstrate qualities of a scholar-practitioner within and beyond the classroom, with students and colleagues as well as members of the community.
- Design and create learning experiences that promote high performance learning for diverse young adolescent learners.


## REQUIREMENTS FOR EVERY MIDDLE LEVEL EDUCATION MAJOR

## Professional Core Courses:

ED 200, ED 282, ED 307, ED 308, ED 370, EDML 400, PY 219, SPED 230, SPED 332, SPED 334 or SPED 360.

## Methods Courses:

EDML 321SL, EDML 323.

## Student Teaching, 1 or 2 of the following courses:

EDML 424, EDML 425, EDML 426, EDML 427.

## Major Content Concentrations-(Choose a Category: One Content Area or Two Content Areas)

If students choose one content area, they will take 30 credits in that content and 12 credits in the other content areas. Example: English/ language arts -30 credits; science -12 credits, social studies -12 credits, science -12 credits, and math -12 credits.

The choices are:
English/Language Arts
Science
Social Studies
Math

If students choose two content areas, they will take 21 credits in each of those contents and 12 credits in the other content areas. Example: English/language arts and science-21 credits in each, and social studies-12 credits, and math-12 credits.

The choices are:
English/Language Arts and Science
Social Studies and Science
English/Language Arts and Math
Social Studies and Math
Science and Math

## SECONDARY EDUCATION CERTIFICATION

Secondary teachers are prepared to teach one or more content areas to students in grades 7 through 12. Teacher candidates major in the content area they wish to teach-Biology, Chemistry, English, General Science, Mathematics, or Social Studies—and are encouraged to prepare themselves in a second teaching area.

Secondary certification teaching candidates will:

- Demonstrate their understanding of adolescent stages of development in order to create positive learning environments for their students.
- Demonstrate effective and appropriate assessment strategies by creating assessment opportunities that are flexible, on-going, and varied and that position students to reflect on their learning.
- Demonstrate pedagogical content knowledge;
- Demonstrate their understanding of learner-centered instructional design by creating lesson plans that incorporate instructional materials, activities, resources, and assessments that are aligned to instructional goals and student needs.
- Demonstrate their understanding of adolescent literacy by designing learning opportunities that incorporate multimodal and multiple literacy strategies: reading, writing, speaking, understanding and interpreting a variety of print and non-print materials.


## Requirements:

Major program determined by content program coordinator.

## Professional Sequence:

ED 200, ED 282, PY 101, PY 206, SPED 230, SPED 336 or SPED 360, SPED 451, ED 307, ED 370, SE 311, SE 402, SE 350, and SE 409.

## Recommended Electives:

Selected core and elective courses that will strengthen the general knowledge of the teacher candidate.

## SPECIAL EDUCATION CERTIFICATION

Carlow University's Special Education program prepares teachers to meet the needs of children with a wide variety of mental, physical, social, emotional, and behavioral disabilities in multiple settings. The Special Education program includes 30 credit hours of course work focusing on the practical application of research-based special education theoretical constructs and methodology. Equally essential are the carefully correlated field experiences totally 210 hours in a variety of classrooms and educational settings.
Graduates of the program obtain Pennsylvania Special Education certification in PreK-8, (3 years of age through eighth grade) and/or 7-12, (seventh grade through 21 years of age). Candidates must also complete an academic major and certification requirements at the PreK-4, 4-8, or 7-12 levels, in addition to the Special Education Program.

Teacher candidates completing the special education program PreK-8 will:

- Demonstrate the ability to design and/or employ a variety of assessment tools and strategies, formative and summative, formal and informal, to analyze the results of the assessments and to use those results in the design and implementation of instruction for students with disabilities.
- Consistently demonstrate knowledge of the characteristics of individuals with disabilities as well as the understanding of the impact of the disabling condition on ability to learn, interact socially and live as fulfilled, contributing members of society. They demonstrate the ability to use this knowledge in planning and implementing instruction for students with disabilities.
- Consistently choose and implement a variety of research-based, systematic instructional strategies designed to allow students with a range of disabilities opportunity to learn identified objectives, content and skills.
- Demonstrate the ability to consistently incorporate a variety of research-based strategies to create positive educational environments that support individual and collaborative learning, value diversity, encourage independence, self-motivation, self-direction, personal empowerment and self-advocacy for students with disabilities.
- Demonstrate the ability to use knowledge about student diversity in general, and individual student characteristics, strengths and needs in particular, to create lessons that meet those diverse needs and that ensure opportunity to learn and access the general curriculum for students with a range of disabilities.
- Demonstrate professionalism and ethical behavior in all interactions with others in the teaching environment by using evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapt practices to meet the needs of each learner.


## Requirements for Special Education Certification in PreK-8:

SPED 230, SPED 332, SPED 334 or SPED 360, SPED 450, SPED 451, SPED 460, SPED 470, SPED 472, SPED 476, SPED 478, SPED 490.
Teacher candidates completing the special education program (7-12) will:

- Demonstrate the ability to design and/or employ a variety of assessment tools and strategies, formative and summative, formal and informal, to analyze the results of the assessments and to use those results in the design and implementation of instruction for students with disabilities.
- Consistently demonstrate knowledge of the characteristics of individuals with disabilities as well as the understanding of the impact of the disabling condition on ability to learn, interact socially and live as fulfilled, contributing members of society. They demonstrate the ability to use this knowledge in planning and implementing instruction for students with disabilities.
- Consistently choose and implement a variety of research-based, systematic instructional strategies designed to allow students with a range of disabilities opportunity to learn identified objectives, content and skills.
- Demonstrate the ability to consistently incorporate a variety of research-based strategies to create positive educational environments that support individual and collaborative learning, value diversity, encourage independence, self-motivation, self-direction, personal empowerment and self-advocacy for students with disabilities.
- Demonstrate the ability to use knowledge about student diversity in general, and individual student characteristics, strengths and needs in particular, to create lessons that meet those diverse needs and that ensure opportunity to learn and access the general curriculum for students with a range of disabilities.
- Demonstrate professionalism and ethical behavior in all interactions with others in the teaching environment by using evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapt practices to meet the needs of each learner.


## Requirements for Special Education Certification in 7-12:

SPED 230, SPED 332, SPED 336 or SPED 360, SPED 451, SPED 452, SPED 460, SPED 470, SPED 474, SPED 476, SPED 478. SPED 490.

## BA TO MED WITH SPECIAL EDUCATION CERTIFICATION ACCELERATED PROGRAM

Undergraduate students in the Early Childhood, Early Childhood/Special Education, Middle Level, or Secondary Education bachelor's degree program are invited to apply to Carlow's Master of Education with Special Education certification program. Students admitted to this program would have the opportunity to take up to nine credits of graduate courses while they are still undergraduate students. These nine credits would apply toward the 33 -credit MEd with Special Education Certification, leaving 24 credits to finish the MEd, which could be done in one year if a student chooses to attend full-time.

The courses that an undergraduate is permitted to take are:

Early Childhood and Middle Level:
Take nine credits from SPED 750, SPED 751, SPED 760, and SPED 772

Secondary Education:
Take the following courses: SPED 751, SPED 760, and SPED 774

Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a $C+$ through $D$-.

These nine credits will also be counted toward the 120 credits needed for the undergraduate degree. Admission into the program will be provisional. Full and final admission to the MEd may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

This opportunity can save students time and money if they are planning on starting into one of Carlow's graduate programs. It is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. To stay in the program, students will need to maintain a 3.0 average.

Formal admission to the Master in Education program begins during your junior year.
To begin study, the student will need:

- Major in Early Childhood Education or Early Childhood/Special Education
- Junior status when applying
- Cumulative 3.2 GPA
- To remain in this program, students will need to maintain a 3.0 overall GPA average
- Undergraduate advisor's approval
- Submit application materials, which include letters of recommendation from two undergraduate Education instructors and a personal statement to be formally admitted.
- Approval of MEd director(s)

Final and full admission to the MEd may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

## AUTISM SPECTRUM DISORDERS CERTIFICATE PROGRAM

The Autism Spectrum Disorders Endorsement certificate program offers educators, counselors, and other professionals a 12-credit sequence (four courses) designed to meet the competencies set forth by the Pennsylvania Department of Education (PDE). If you are interested in working with children and youth with Autism Spectrum Disorders, including Autism, Pervasive Developmental Disorder (PDD and PDDNOS), Aspergers syndrome, Rett's syndrome, and Childhood Disintegrative Disorder (CDD), this program will prepare you to design effective programs for your students.

Through a four-course sequence, students become familiar with the theories and methods proven to be successful in working with the ASD population. The first course in the sequence, SPED 472: Positive Behavior Supports PK-8 or SPED 474: Positive Behavior Supports 7-12, provides a foundation of Applied Behavioral Analysis, including conducting Functional Behavior Assessments (FBAs) and designing Behavior Interventions (BIPs). The second course, SPED 460: Communication and Assistive Technologies focuses on typical challenges for students with ASD in developing effective communication and provides an in depth exploration of the various assistive technologies including augmentative communication systems that improve opportunities for students to access the general education curriculum or to develop functional communication skills. The third course, SPED 478: Autism, explores the evidence-based practices for teaching children who are on the spectrum including Applied Behavior Analysis (ABA), TEACCH, Early Start Denver Model, Discrete Trial Training (DTT), Verbal Behavioral Intervention (VBI), Picture Exchange Communication System (PECS), and Pivotal Response Training (PRT). The final course in the sequence, SPED 788: Applied Issues in ASD, addresses professional ethics, co-morbidity and medications, and parental collaboration. Central to the final course is the opportunity to apply the methods previously explored in a classroom or therapeutic setting.

The four courses are offered in either the traditional classroom on our Oakland campus or through our digital learning environment (DLE), available online. The fourth (last) class is an exclusively online course.

## MAJORS

CREATIVE WRITING
ENGLISH
ENGLISH WITH SECONDARY EDUCATION (7-12)

## MINORS

CREATIVE WRITING
ENGLISH
PROFESSIONAL WRITING
WOMEN'S AND GENDER STUDIES

## COLLEGE OF LEARNING AND INNOVATION - ENGLISH DEPARTMENT

## CREATIVE WRITING MAJOR

The creative writing curriculum explores the work of many great writers, past and present, and encourages students to respond thoughtfully and critically to those works. By exploring all genres of literature and workshopping creative pieces with peers and professional authors, students expand their abilities to consider important concepts including context, image, voice, and audience. Students may concentrate on poetry, fiction, or creative nonfiction.

Students may develop additional experience in editing, writing, graphic design, and planning literary events through internships with The Critical Point (the University's journal of visual and literary arts), Dionne's Story (an anthology of original writing connected to Dionne's Project), the Hungry Sphinx Reading Series (an interactive series between the community and the university), and Voices From the Attic (the annual anthology of the Madwomen in the Attic).

## Major Requirements: 38 credits

EN 200, one special topics course (choose from EN 216, EN 217, or EN 218); EN 405; EN 445 (11 credits).
Three English electives ( 9 credits),
World Literature/Language cluster: (foreign language, EN 219, EN/WS 233I, EN 340, EN 400 on an international writer, or study abroad for academic or service-learning credit) (6 credits).
12 credits in one of the following areas of concentration:
Poetry Concentration: EN 208, EN 239, EN 241, EN 343, EN 358, EN 435
Fiction Concentration: EN 205, EN 242, EN 334, EN 344, EN 406, EN 420
Creative Nonfiction: EN 203, EN 223, EN 229, EN 370, EN 410, EN 412

## CREATIVE WRITING MINOR

Students who minor in creative writing must take a minimum of 18 credits in creative writing. The student and faculty advisor will design the program that best suits the student's needs.

## ENGLISH MAJOR

The English major provides a strong foundation in British and American literature, world literature, major writers, and linguistics. Students who major in English have the flexibility to focus on additional areas of interest by taking a variety of electives, combining their degree with a secondary education certification, or pursuing a double major or minor in creative writing or professional writing. Many major courses highlight women writers' contributions to the history of literature.

English majors develop the ability to read critically, to communicate clearly and confidently, and to conduct research with an open and analytical mind. The major prepares students for many professions that require strong analytical thinking and exceptional communication skills, including fields such as teaching, publishing, public relations, and law.

English majors may develop additional skills and professional experience through membership in Sigma Tau Delta (the English Honors Society) and editorial internships for The Critical Point and Dionne's Story anthologies.

## Major Requirements: 41 credits

EN 207, EN 220, EN 301, and EN 444 (11 credits)
Two American literature courses (EN 225, EN 305, EN 306, EN 321, EN 322, or EN 323) (6 credits)
Two British literature courses (EN 270, EN 271, EN 318, EN 319, or EN 320) (6 credits).
Three world literature/language courses (EN 219, EN/WS 233I, EN 265, EN 310, EN 340, foreign language or study abroad for academic credit) ( 9 credits) Three English electives ( 9 credits) which may include internship experience.

The requirements are the same for English majors seeking certification in secondary education or preparing for graduate study in English, but students intending to pursue a graduate degree in English should take at least two semesters of foreign language to meet the world literature/ language requirement. Students who have an undergraduate degree and are applying for secondary certification must have Chaucer (EN 207),

Linguistics (EN 220), Shakespeare (EN 301), American literature, and world literature. In general, such students must take a minimum of two upper division English courses at Carlow.

Students who combine an English major with a major in another discipline must fulfill a minimum of 26 to 27 credits in English.

## ENGLISH MINOR

Students who minor in English must take a minimum of 18 credits in English. The student and faculty advisor will design the program that best suits the student's needs. English minors have opportunities to explore literature that intrigues them, through topics as diverse as crime fiction, Irish literature, and environmental justice literature.

## PROFESSIONAL WRITING MINOR

Students who minor in professional writing must take a minimum of 18 credits in writing selected from the following courses: EN/CM 180, EN 200, EN 218, CM 242, EN 244, EN/CM 260, EN/CM 330, EN 346, EN 347, EN 348, EN 349, CM 360 or EN 405. The student and faculty advisor will design the program that best suits the student's needs. Professional writing minors develop the ability to write clear, organized prose suitable for the organizational or publishing workplace environment.

## WOMEN'S AND GENDER STUDIES PROGRAM

Women's and gender studies courses look at contemporary and historical research about and creative productions by women; raise new questions which are relevant to women in global cultures; question sex role relationships and basic social assumptions regarding women's roles; and encourage students and faculty to do research and creative productions about gender issues. Women's and gender studies incorporate interdisciplinary concepts and methods and question masculine biases across the disciplines. Courses explore the historical condition of women, the interpretation of women in the various disciplines, and the present and future position of women in society. The program fosters new scholarship in order to understand the cultural history of gendered experiences as well as to debate gendered situations today.

## WOMEN'S AND GENDER STUDIES MINOR

## Requirements:

The women's and gender studies program offers an introductory course, a course in feminist theory, and a course in global perspectives. Students who would like to minor in women's and gender studies should first enroll in level one courses, in the order in which they appear below, before moving on to level two courses, which are cross-listed in various departments and programs. The women's and gender studies program requests that the two cross-listed courses not be from the same discipline/department and that the student also complete one women's and gender studies elective. Under this structure, the total credits needed for the minor in women's and gender studies is 18.

## Level 1: Required Core Women's and Gender Studies Courses:

- WS 101: Introduction to Women's and Gender Studies 3 credits
- WS/EN 233I: Visions of Social Change: Global Women's Writing (CC 100, CC 101, and CC 102 are prerequisites for the course) 3 credits
- WS 320: Feminist Theories 3 credits

Level 2: Required Cross-listed Women's and Gender Studies Courses:
Two cross-listed courses from different disciplines/fields total 6 credits

## Level 2: Required Women's and Gender Studies Elective:

One women's studies elective; this course can be a cross-listed course 3 credits

## MAJORS

HISTORY

- WITH SECONDARY EDUCATION/SOCIAL

STUDIES CERTIFICATION

## LIBERAL STUDIES

MATHEMATICS

- WITH SECONDARY EDUCATION CERTIFICATION
PHILOSOPHY
THEOLOGY


## HUMANITIES DEPARTMENT

## MINORS

HISTORY
MATHEMATICS
MODERN LANGUAGES
PHILOSOPHY
THEATRE
THEOLOGY

## COLLEGE OF LEARNING AND INNOVATION - HUMANITIES DEPARTMENT

## HISTORY MAJOR

The study of history and the skills developed in writing history provide a sound basis for positioning students in the increasingly competitive job markets of today and tomorrow, for their formal and informal education later in their lives, as well as during their college years. A major in history is one of the best foundations for success in career and academic plans. Knowledge of history is essential for success in a rapidly changing world. Understanding humanity's recorded experience gives students the information and perspective they need in order to be able to think in an orderly way about the world: its economics, politics, cultures, legal systems, and religions. History also provides students with a context for better understanding and enjoying literature, music, and the arts, all of which are in part reflections of the times in which they were produced. Equally important are the skills in research and writing developed in the course of historical study. These skills are readily transferable to everyday life, future scholarship, and a career. The quality performance of history majors in law, business, education, government, journalism, television and radio, and the arts has long been recognized. A major in history is a good preparation for graduate study in history or other humanities.

The history major program can be combined with virtually any minor program at Carlow. History is also an ideal second major augmenting the advantages of almost any field of study.

Graduates from Carlow with a degree in history should:

- Exhibit in-depth knowledge in a specialty area coupled with a broad familiarity with other histories, Western and/or non-Western, and a solid foundation in methodology;
- Produce scholarship sensitized to the issues of class, race, gender, and sexual orientation, manifestly utilizing cross-cultural and transnational perspectives, leadership issues, and peace and justice considerations;
- Demonstrate familiarity with current concerns and debates within historiography; the social and cultural significance of these debates;
- Show knowledge and versatility adequate for entrance to and successful completion of an MA and/or PhD program in history or another superior degree in other related graduate programs, or to pursue a career in journalism, the media, or the arts upon graduation.


## Major Requirements: 33 credits

## Area I: Required Courses

HS 110, HS 151, HS 170, HS 171

## Area II: Area of Concentration

Four courses in an area determine a concentration. The area of concentration may be defined either:

- On the basis of geographical cultural areas, e.g. United States, Europe, non-Western, or
- On the basis of a unifying theme, method, subject, or time period, e.g., multiculturalism, popular culture, women's history, social history, postcolonial studies, etc.


## Area III: Courses outside Concentration

Two courses outside the field of concentration selected in consultation with faculty.

## Area IV: Senior Thesis (HS 456)

History majors are required to write a 25 - to 30 -page senior thesis on a topic approved at the end of the second semester of their junior year.

## SECONDARY EDUCATION CERTIFICATION IN SOCIAL STUDIES

Candidates seeking certification must complete a history major that includes content in geography, sociology, anthropology, political science, economics, and psychology. Students seeking state certification to teach on the secondary level must successfully complete courses in each of those areas to comply with state standards for social studies certification. Students should contact the chair of the history department and the director of secondary education for specific requirements.

Students who minor in history must take a minimum of 15 credits in history. The student and faculty member will design the program that best suits the student's needs.

## LIBERAL STUDIES MAJOR

A Bachelor of Arts degree in liberal studies provides an ideal major for the creative, independent student who is interested in an interdisciplinary focus. This major allows the student to gain significant depth in two or more areas of study and, at the same time, to acquire the breadth that is characteristic of a liberal arts education.

While a degree in liberal studies is a very practical degree in itself, this major is an ideal preparation for students who are planning to pursue studies beyond the bachelor degree level. It is an individually-designed program of study involving the humanities, the natural sciences and mathematics, and the social sciences. The program culminates in a required senior thesis drawing from the student's areas of concentration. Students will work closely with their liberal studies advisors to design and meet the specific program requirements.

## Program Requirements:

In addition to the core requirements of the University, students majoring in liberal studies are required to take a minimum of 33 credits in liberal arts courses. Liberal arts courses are considered to be those found in the humanities, the natural sciences and mathematics, and the social sciences. All liberal studies students are required to complete a liberal studies senior thesis ( $1-4$ credits) during the year or semester of graduation. In the required senior thesis the student must demonstrate a working knowledge of the methodologies used in the chosen areas of concentration.

## Areas of Concentration:

Students majoring in liberal studies are required to choose a minimum of two areas of concentration from the liberal arts and to take 12-15 credits in each of those areas. Students may take no more than two 100-level courses in their areas of concentration. The remainder of the courses in a particular concentration must be 200-level or higher.

## MATHEMATICS MAJOR

The curriculum in mathematics provides the knowledge and experience needed to be a professional mathematician or pursue advanced study in a related area. The courses provide a balance between applied and theoretical problem solving, while the Junior Seminar and Senior Experience allow an in-depth exploration of an area beyond the formal course work. The design of the major provides ample opportunity to pursue a minor in another academic discipline, to expand potential career opportunities, or to prepare for law school. Students completing the major in mathematics will have satisfied content area requirements for Pennsylvania secondary certification in mathematics.

## Requirements for Bachelor of Science in Mathematics:

Mathematics majors are required to complete: MAT 160, MAT 260, and MAT 360 (Calculus I, II, and III: 12 credits), MAT 302 (Linear Algebra: 3 credits), plus at least four additional upper level mathematics courses (at least 12 credits) and CSC 110 (Introduction to Computer Programming: 2-4 credits), or MAT 151I (Computer Applications for Science and Mathematics: 3 credits). Each student must also complete a Junior Seminar (MAT 398/399: 2 credits) and Senior Experience (MAT 498/499: 4 credits) in mathematics.

## Required Support Courses:

Each student must complete PCS 221/223 (Physics with Calculus I Lecture and Laboratory: 4 credits).

## CERTIFICATION IN SECONDARY EDUCATION IN MATHEMATICS

Students desiring secondary education certification must complete the mathematics major and meet the requirements outlined by the Education Department.

## MATHEMATICS MINOR

## Requirements for Mathematics Minor:

Students must complete MAT 160 and MAT 260 (Calculus I and II: 8 credits), MAT 302 (Linear Algebra: 3 credits) plus at least two additional upper level mathematics courses lat least 6 credits). (Note: MAT 398/399 and MAT 498/499 do not fulfull this requirement.) In addition, MAT 1511 (Computer Applications for Science and Mathematics: 3 credits) or CSC 110 (Introduction to Computer Programming: 2-4 credits) must be completed.

## MODERN LANGUAGES MINOR

Students may earn a minor in modern languages by achieving six semesters of foreign language study. At least three of those semesters must be obtained at Carlow by studying language in a Carlow University-approved study abroad program language course, a PCHE language course, or by completion of EN 220 Linguistics. The balance may be achieved by transferring credits. Eligible credits include:

- Credits earned on study abroad prior to transfer to Carlow OR during enrollment at Carlow
- Credits earned through study at a PCHE institution (These are cross-registered, not transferred credits)
- Credits transferred from another college/unversity at the time of transfer admission


## PHILOSOPHY MAJOR

The philosophy major is designed to be a comprehensive introduction to the history of philosophy and its many themes that will introduce the student to the exciting realm of the ongoing journey of philosophic discourse and ideas. The philosophy curriculum is also designed as a prelaw, pre-professional major in the humanities. The curriculum not only provides majors with a rigorous overview of the great ideas in the history of philosophy, but also with the reasoning and writing skills necessary for entry into law and public policy. By studying the arguments of great thinkers from the past and present, philosophy majors gain a strong sense of their intellectual heritage and the ongoing debates-from gender to jurisprudence-that are a part of that heritage. With its flexible requirements, philosophy is also an ideal second major. As a second major, philosophy provides a strong humanities background for students whose primary major-perhaps biology or business management-may not provide this opportunity. Additionally, philosophy is a superb complement to majors such as psychology or education. With its emphasis on language skills, critical thinking, and abstract reasoning, philosophy is a major with numerous practical applications. Philosophy majors consistently do well on law school entrance exams, graduate school entrance exams, and business graduate school entrance exams.

## PURPOSE

The philosophy major has the joy of examining and asking the largest and most important of the human questions concerning life and the nature of the universe in which we find ourselves. With its emphasis on a critical study of past and present systems of philosophic thought, many of the goals and purposes of the Carlow philosophy major can be clearly found in the mission statement of the University. "Carlow University, rooted in its Catholic identity and embodying the heritage and values of the Sisters of Mercy, offers transformational educational opportunities for a diverse community of learners and empowers them to excel in their chosen work as compassionate, responsible leaders in the creation of a just and merciful world."

## CONTENT

The philosophy major investigates the formative ideas and arguments of great female and male thinkers of the past and present. By doing so, the student gains a strong sense of our collective intellectual heritage with its strengths and flaws. Finally, the student is trained to think, write, and speak critically.

## METHOD

Students read and respond in writing to original and secondary texts in the history of philosophy, and thereby develop the intellectual skills necessary to apply abstract ideas to the political and moral decisions required of practical life.

## Major Requirements: 30-33 credits plus the senior thesis (PH 499, credits vary)

The philosophy major requires 10 courses in philosophy. Three courses ( 9 credits) are required:

- PH 100 Intro to Philosophy
- PH 105 Intro to Moral Reasoning
- PH 204 Intro to Logic


## Seven courses ( 21 credits) will be electives:

An elective, however, may be fulfilled in disciplines other than philosophy if the courses are accepted by the philosophy advisor. For example, as electives, courses in ethics, gender theory, law, or social theory not offered by the philosophy program are acceptable alternatives to PH designated courses.

## Senior Thesis

PH 499 Senior Thesis ( 3 credits) is required for students taking philosophy as their primary or sole major, but not required of students taking philosophy as a second major. PH 499 is included as one of the required 10 courses for a philosophy major.

All philosophy majors must work and meet regularly with a member of the Philosophy department about the appropriate courses for their degree in light of their professional expectations upon graduation. Flexibility is the hallmark of the philosophy major but only with the approval of a member of the department.

## PHILOSOPHY MINOR

A philosophy minor can be obtained by completing at least 15 credits (five courses) in the field of philosophy. Philosophy minors should meet with the members of the Philosophy department about which courses would be most appropriate for their degree.

## THEATRE MINOR

The theatre minor requires a minimum of 18 credits including TR 103 and TR 205. The student and advisor will plan the program in accordance with the student's interests.

## THEOLOGY MAJOR

Theology is a scholarly study of the mystery of human existence and the interdependence of women and men as they relate to God. Theology examines the human experiences that have given rise to questions of religion such as the meaning of life and death, the existence of a personal God, the search for human values, issues of peace and justice, contemporary spirituality, and ministry of the laity. These questions have no answers. Rather they invite inquiry into reality in a unique way by engaging one in reflection that yearns for Sabbath, i.e. sacred time set aside to ponder the depth of the richness and wisdom of God in human beings, in human history, and in all of creation. Following upon this, it seems that the theology major comes to this discipline already with a prerequisite: the desire to rest in the depths of holy mystery. The Department of Theology provides the discipline necessary for this unique way of inquiry through a sequence of courses in scriptural, historical, systematic, and moral theology, and pastoral ministry.

Many theology majors have traditionally elected to teach religion after graduation; however, Carlow offers programs that open a wide spectrum of career possibilities in the pastoral, liturgical, and health care ministries. In addition, students have pursued graduate studies in theology. A theology major prepares students for graduate studies in literature, law, and other academic and professional areas. However, perhaps the most unique feature of a theology major is that it prepares the student for a lifetime of mystery.

Often students majoring in theology also choose a second major. There are exciting connections to be made between theology and other disciplines that can prepare a student to approach critical human issues in a more comprehensive way. Increasingly, both religious and secular scholars are recognizing the value of interdisciplinary thinking.

Graduates with a theology degree will exhibit the following:

- A good understanding of Catholicism, as well as other Christian faith traditions, its development over the centuries, and its contemporary interpretation, in dialogue with other religions, cultures, feminism, peace and justice; and other ethical concerns;
- Competency in theological method, developed theological language, and familiarity with the academic tools of the discipline; and
- Skills and insights that, together with the study of theology, offer a variety of career choices such as pastoral ministry, teaching, counseling, and communications.


## Major Requirements: 30 to 40 credits, including TH 101 and the following

Area I: Scripture ( 6 credits) One Old Testament course and one New Testament course
Area II: Systematic Theology ( 9 credits) One course in Christology, and one course in ecclesiology
Area III: Moral Theology ( 3 credits)
Area IV: Historical Theology (3 credits)

## Electives: 3 to 12 credits

## Recommended Support Courses:

Theology majors are encouraged to acquire at least an elementary knowledge of a foreign language, classical or modern.

## THEOLOGY MINOR

Students who minor in theology must take 18 to 24 credits in the department including TH 101. The student and advisor plan the program in accordance with the student's interests.

## COLLEGE OF LEARNING AND INNOVATION

COURSE DESCRIPTIONS

## ART EDUCATION

## AE 326 Elementary Art Methods and Materials

Sequential and systematic exposure and training in age appropriate methods, materials, and techniques for elementary art programs. Students gain theoretical knowledge in art education theory, developmental stages of artistic growth, and in the structuring and maintenance of a comprehensive elementary art program. Field placement required. 3 credits

## AE 327 Secondary Art Methods and Materials

Core course designed for art certification majors to gain an understanding of the structuring and maintenance of a sequential art program at the middle/junior and senior high level. Emphasis placed on technical skills appropriate for fostering the special creative needs of the adolescent student. Field placement required. 3 credits

## AE 409/410 Elementary/Secondary Art Student Teaching

 Eight weeks full-time teaching in an elementary ( $\mathrm{K}-6$ ) art room and eight weeks in a secondary (7-12) art room under the direct supervision of the cooperating teacher and University supervisors. Verification of competence will be determined jointly by the cooperating teacher and the University supervisor. The seminar will include the development of topics particularly pertinent to this experience: school law, professional organizations, evaluation, school-based relationships, strategies for teaching, classroom management, development of assessment strategies, and preparation for employment. 6 credits for each course, equals a total of 12 credits PREREQUISITE: COMPLETION OF ALL MAJOR COURSE REQUIREMENTS, PROFESSIONAL SEQUENCE REQUIREMENTS, AND MINIMUM CUMULATIVE GPA OF 3.0. NOTE: NO OTHER COURSES MAY BE TAKEN WHILE A STUDENT IS REGISTERED FOR AE 409 AND AE 410 WITHOUT SPECIAL PERMISSION OF THE CHAIR OF ART EDUCATION.
## ART

AR 101 Introduction to Art/Visual Culture I
An introduction to the history of art from the prehistoric period to the year 1300 . This course provides a chronology of the major works in the Western tradition and provides the basic terminology and methodologies necessary to analyze these works in a social, historical, religious, and/or material context. 3 credits
FULFILLS FINE ARTS LAI AND GLOBAL REQUIREMENTS.

## AR 102 Introduction to Art/Visual Culture II

An introduction to art in the West from Renaissance to early 20th century. Students learn basic vocabulary and methodologies necessary to analyze key works and critically engage with issues raised. Special attention given to representation of social relations, gender, religion, and politics; the context of production, use, and display. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## AR 111 Basic Art I/Drawing I

An introduction to two-dimensional drawing media, techniques, and concepts. The course will cover line, value, perspective, and other basic drawing issues. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## AR 114 Basic Art/Drawing II

A second level drawing course following AR 111 Basic Art I/Drawing I. Continued development of basic drawing techniques along with more in-depth exploration of various 2-D media and conceptual approaches. 3 credits

## AR 115 Basic Art and Design

An introduction to two-dimensional design concepts. Course will include composition elements, as well as a component on color theory. These issues will be explored through a variety of media. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## AR 203 Modern and Contemporary Art

Every two years Pittsburgh hosts one of the most important exhibitions of global contemporary art, The Carnegie International (CI). This course highlights the artists and artwork of the current Cl and places these works in an historical context. The first half of the course will be devoted to issues in modern and avant-garde art in Europe and North America and sets the foundation for an in-depth exploration of the Cl . The second half of this course will explore the ways in which the modernist tradition has been challenged and re-evaluated by contemporary postmodern and feminist artists from around the world, highlighting the work of artists represented in the CI. 3 credits FULFILLS GLOBAL REQUIREMENT.

## AR 206 (PH 206) Aesthetics

Investigation of the history of aesthetics and its pertinence to art. The role of art as a vehicle of philosophic expression will be examined along with the aesthetic theories of such thinkers as Plato, Aristotle, Kant, Nietzsche, Schopenhauer, and Marx. Film and music will also be used in the class, as well as an examination of poetry and its philosophic and aesthetic significance. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## AR 209 (WS 209) Women and Art

An investigation of the history of art through the lens of feminist critical theory. Explores the production and status of women artists and patrons as well as the representation of women in art from
the Renaissance to the present. Students critically engage with course materials through class dialogue, written assignments, and collaborative projects. 3 credits FULFILLS FINE ARTS OR WOMEN'S STUDIES LA. PREREQUISITE: AR 102.

## AR 214SL Public Art in the United States

Studies the history of public art in the United States from the late 19th century until the present. Emphasis on the critical issues raised by public art over time as they relate to race, class, gender, and key historical events in American history. Highlights how public art is used to create and shape identity and space. 3 credits
FULFILLS FINE ARTS LAI AND SERVICE-LEARNING REQUIREMENTS.

## AR 221 Life Drawing and Media

A second-year level experience in drawing of the human figure. Included in the course are concepts such as gesture, anatomy, proportion, and composition. Students will work with anatomical and live models. Various media will be explored. Fullfills linked requirement when offered as AR221L and taken with BIO 157L. 3 credits PREREQUISITES: AR 111 OR AR 114 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## AR 222 Concepts and Media

A course designed to familiarize students with contemporary conceptual art skills, thinking through the process of artistic idea generation, personal approaches to subject matter and content, and developing individual art practices. Themes can include: the self, processes and systems, time and space, etc. Course can be repeated for credit and has no prerequisites. 3 credits

## AR 224 Introduction to Fiber Arts

An introduction to creative expression using traditional and contemporary approaches to fiber and mixed media materials. Emphasis on combining content and form and application of craft techniques such as quilting, crocheting, basketry, sewing, etc. to production of expressive artworks. 3 credits

## AR 225 Art and Science

This course will explore how scientific discoveries, ideas, and concepts inspired and influenced artists and their works. Focusing on art created from the Renaissance through the present, this class will examine the links between art and science in various media. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## AR 227 Painting I

An introduction to basic concepts and techniques in oil painting.
There will be a concentration on color mixtures, creating form, space, and light. A variety of subjects will be explored. 3 credits PREREQUISITES: AR 111 OR AR 114.

## AR 229 Drawing and Painting II

An exploration of advanced drawing and painting issues. Experimentation with media and technique. 3 credits PREREQUISITES: AR 111 OR AR 114, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## AR 240 Sophomore Review

An opportunity for the student to learn how to create and present a professional presentation of artwork and progress to date. The student and the studio arts faculty assess the work and its presentation, helping guide the student's course of study. 1 credit ART MAJORS ONLY.

## AR $245 \quad$ Heritage of American Art

An introduction to the major themes in the art and culture of the United States from the colonial period to the 20th century. Special attention is given to the issues of race, class, and gender as they relate to art production, art reception, and the articulation of "national identity" in the visual culture of the United States. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## AR 249 American Art of Our Century

A survey of the dynamic development of painting and sculpture in the United States during the 20th century, particularly the interaction of traditional American and innovative European styles. 3 credits

## AR 254 World Architecture

A survey of Western architecture from the prehistoric period to the present which focuses on particular monuments, both public and private. Architectural types, stylistic influences, urban design, and cross-cultural currents are studied in order to provide students with a vocabulary of terms for discussing and analyzing how architecture both shapes the environment and communicates meaning. 3 credits

## AR 266 Special Topics in Modern Art

A special topics course in the area of the history of modern art. Students engage in an in-depth exploration of a particular topic, issue, theme, or artist of the modern period through advanced readings, class discussion, research, and written exercises. 3 credits PREREQUISITE: AR 102.

## AR 268 Contemporary Art Issues

An introduction to the art theories and practices of artists working with social and political issues in the 20th century. Surveys major international modernist art movements such as Futurism, Constructivism, Expressionism, Dada, and Surrealism. Concentrates on the social engagement and art activism of artists from the 1960s to 1990 s in the context of social and political movements. 3 credits

## AR 3051 (TH 305I) Memory

An exploration of the topic of memory through the two lenses of theology and art, the student will assimilate aspects of the material presented by each professor into an understanding that places the two viewpoints into a more holistic framework. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENTS. PREREQUISITE: CC 101.

## AR 307 (CM 307) Media Criticism

An introduction to the aesthetic and social analysis of mass media, film, and television through critical writing and discussion. 3 credits MAY FULFILL LINKED REQUIREMENT WITH HS 304L WHEN OFFERED AS AR 307L.

## AR 311 Issues of Scale and Quantitative Project Development in the Studio Arts

The course is intended to develop the student's quantitative understanding of scale in artwork as well as in exploring methods for quantitatively approaching studio project development. 3 credits PREREQUISITES: CC 101, CC 102, AR 111, AND AR 115

## AR 315 Sculpture

A concentration on formal and technical problems of threedimensional media (volume, space, structure) and investigation of the techniques of modeling, casting, carving, and construction using a variety of materials. 3 credits PREREQUISITES: AR 111, AR 115, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## AR 317 Painting II

A focus on more advanced painting issues. Discussions of painting styles, personal voice, and other issues of expression. Refinements in basic skills while reviewing and exploring contemporary visual directions. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT. PREREQUISITES: AR 111 OR AR 114 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## AR $321 \quad$ Printmaking

An introduction to basic printmaking methods. Course will include lino block, monoprint, collagraph prints, and drypoint etching. Emphasizes understanding various techniques, development of concepts, and precision of print execution. 3 credits
PREREQUISITES: AR 111 OR AR 115 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## AR 322 (HS 322, WS 322) Representations of Women: High Art/Popular Culture

A study and critique of concepts of gender and sexuality in representative texts (film, painting, music, and television). Critical and source materials are drawn from art history, cultural studies, feminist theory, and history. 3 credits

## AR 330 Advanced Projects

Advanced project work in any visual media for students beyond the sophomore level. Students work on projects of their own design. The emphasis of the course is on conceptualizing, researching, and executing substantive art projects, as well as advancing students' familiarity with techniques and media. 3 credits
PREREQUISITE: PERMISSION FROM THE DEPARTMENT CHAIR.

## AR 331SL Ceramics

An introduction to ceramic design and techniques, including the hand-built methods of pinch, coil, drape, and slab as well as wheel throwing with stoneware clay. Emphasis on creativity, concepts, terminology, and process. 3 credits FULFILLS LAI REQUIREMENT AND SERVICE-LEARNING REQUIREMENT.

## AR 355 Introduction to Computer Art

An introductory course in basic computer art skills including Adobe Photoshop, basic Web page design, and art production using advanced MS PowerPoint. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

AR 400 Independent Study
A student-designed course in an area of art not covered by current courses. Requires the approval and sponsorship of a faculty member prior to registration. Credits vary.

## AR 421 Senior Project

An opportunity for the student to create and present a professional presentation of art work and progress to date. The student and the studio arts faculty assess the work and its presentation. Can be expanded to include a project approved and advised by a faculty member. 2 to 8 credits REQUIRED OF ALL ART MAJORS. ART MAJORS ONLY.

## AR 450 Internship

Opportunity for professional student experience in various organizations. 1 to 8 credits

## ART THERAPY

## AT 205 Foundations of Art Therapy

An introduction to art therapy where students learn how are is used therapeutically with various populations and in a variety of settings. Through class participation using art therapy techniques and case presentations the students will gain knowledge of how art can be used to establish therapeutic goals and then be used to achieve those goals. The student will develop a basic understanding of the field of art therapy and how its roots developed from the field of psychology. 3 credits ART THERAPY MAJORS ONLY. PREREQUISITE: PERMISSION FROM THE DEPARTMENT CHAIR.

## AT 339 Expressive Visual Techniques

An introduction to various media as they apply to art therapy and to specific expressive art therapy techniques. The students will achieve understanding and working knowledge through participation, individually and in groups, in expressive art/art therapy activities and through discussion concerning the values, purposes, and goals of the art experience. Understanding of the experiential will be appreciated through discussion of the student's own artwork and through slides, films, photographs, and artwork of clients in treatment. 3 credits

## AT 406 Art Therapy Practicum

An in-depth sequence of therapeutic clinical art experiences under the supervision of a registered art therapist. Exposes the student to the practice of art therapy on a pre-professional level. The student will write a case study and present work. 1-3 credits
PREREQUISITE: AT 205.

BIOLOGY

## BIO 110 Foundations of Organismal Biology

A first course in the biology curriculum that introduces students to the unity of life in both animals and plants. Students will learn that although the life forms of our planet may vary in evolutionary history, they share the same basic principles of form and function. The course will cover the anatomical structures and physiological systems that maintain animal and plant life. Three hours of lecture and three hours of lab per week. 4 credits FOR BIOLOGY MAJORS. FULFILLS NATURAL SCIENCES LAI REQUIREMENT.

## BIO 120 Foundations of Molecular and Cell Biology

A second course in the biology curriculum that introduces students to molecular and cellular theory, including the structure and function of cells at the microscopic and sub-cellular levels. Students will also examine the concepts of energy metabolism, biochemistry and biosynthesis of macromolecules, and the genetic level of organization. Three hours of lecture and three hours of lab per week. 4 credits FOR BIOLOGY AND CHEMISTRY MAJORS.

## BIO 151I (CHM 151I, MAT 151I)

Computer Applications for Science and Mathematics
An introduction to the practical application of computer hardware and software to problems in the sciences and mathematics.
Topics include basics such as using a graphical user interface and common office applications. More advanced topics include computer interfacing to instruments, mathematical modeling, curve fitting, molecular modeling, and others. No computer background is assumed. Three hours lecture/workshop/ demonstration weekly. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT. PREREQUISITES: BIO 110 OR PCS 221; MAT 152 OR MAT 160; CC 100, CC 101, AND CC 102.

## BIO 157 Contemporary Biology

An overview of the principles and applications of biological knowledge as they relate to health, medical, agricultural, and ecological issues in contemporary society. The process and methods of scientific inquiry, its resulting technologies, our understanding of the natural world, and the impact of our knowledge and the technologies on our society and environment are examined. An underlying theme is humankind, human form and function, and humankind's relationship to the natural world. Three hours of lecture and one two-hour lab per week. Open to all non-biology majors.
4 credits FULFILLS NATURAL SCIENCES LAI REQUIREMENT.

## BIO 157L Contemporary Biology

Designed for the non-biology major who is interested in developing a strong foundation in human anatomy. The course begins with a focus on the investigative process by which knowledge in science in accumulated. Major emphasis is then placed on the two systems of the human body which provide structural support: the skeletal and muscular systems. Three hours of lecture and two hours of
laboratory each week. Open to all non-biology majors. 4 credits FULFILLS NATURAL SCIENCES LAI AND THE LINKED REQUIREMENTS WHEN TAKEN WITH AR 221 AND OFFERED AS BIO 157L.

## BIO 203 Pathophysiology

A course examining the underlying processes and effects of disease at the level of cells, tissues, organs, and systems. Cellular mechanisms lay the foundation for examining pathophysiological changes in organs and systems. Three hours of lecture weekly. 3 credits PREREQUISITES: BIO 205 AND BIO 206.

BIO 205 Anatomy and Physiology I
BIO 206 Anatomy and Physiology II
A set of two courses designed for the biology major preparing for careers in perfusion technology, the health professions, or forensic science. These comprehensive courses cover the anatomical structure of all major systems of the body and the physiological and homeostatic mechanisms that are associated with their functions. Three hours of lecture and two hours of lab per week. 4 credits each PREREQUISITES: BIO 110 AND BIO 120.

## BIO 207 Anatomy and Physiology I <br> BIO 208 Anatomy and Physiology II

A sequence of two courses. The students examine the anatomy and physiology of the various systems of the body. The relationship between structure and function and the concept of homeostasis are emphasized. Attention is given to clinical correlation and application of basic anatomical and physiology facts. Three hours of lecture and two hours of lab weekly. Successful completion of BIO 207 (D or better) is a prerequisite for BIO 208. A grade of C or better is required for nursing majors. These two courses do not satisfy an elective requirement for biology majors. 4 credits each FOR NURSING MAJORS: COREQUISITE FOR BIO 207 IS NU 2161/2162, COREQUISITE FOR BIO 208 IS NU 2171/2172.

## BIO 225 Comparative Anatomy

A course designed to provide the biology major with a comprehensive understanding of the anatomy of the members of the Phylum Chordata. Through lectures and laboratory dissection, students examine the diverse nature of chordate structure and appreciate the mechanisms of evolution that have produced these features. Three hours of lecture and two hours of lab per week. 4 credits
PREREQUISITES: BIO 110 AND BIO 120.

## BIO 227 Microbiology

A course designed to provide students with an introduction to the biology of micro-organisms, particularly bacteria, fungi, protozoa, helminths, and viruses that are agents of human disease. Emphasis is on the biological bases for clinical activities in disinfecting and sanitation, infection control and prevention, and antimicrobial chemotherapies. Host defenses, the immune response, and immunotherapies are also examined. Includes practical experience in bacteriological and immunological lab techniques. Three hours of lecture and one two-hour lab per week. 4 credits
PREREQUISITES: CHM 105 OR CHM 111-113, CHM 112-114.

## BIO 2301 (PY 230I) Biological Basis of Behavior

Biological Basis presents an in-depth focus on neuroanatomy, the nervous system, and other biological processes relevant to human thought and behavior. Students will learn the structure and function of the nervous and endocrine systems, with a specific focus on how biological systems influence psychological functions and vice versa. Students will become familiar with the terminology and research methods of both biology and psychology, and will be introduced to exciting interdisciplinary neuroscience fields. 3 credits FULFILLS NATURAL SCIENCES AND SOCIAL/BEHAVIORAL LAI AND INTERDISCIPLINARY REQUIREMENTS.

## BIO 231 Basic Human Anatomy and Neurobiology Laboratory

A hands-on laboratory course that covers all human body systems (i.e. skeletal, muscular, cardiovascular, respiratory, digestive, renal, and reproductive) with special emphasis placed on the structure and function of the nervous and endocrine systems. This laboratory course, along with the lecture topics covered in BIO 231I provides a basic understanding of the structure and function of the human body. 1 credit FULFILLS NATURAL SCIENCES LAI REQUIREMENT WHEN TAKEN WITH BIO 230I.

## BIO 250 Genetics

An investigation into the maintenance, inheritance, transfer, and expression of genetic information at the molecular, cellular, organismal, and population levels. Includes Mendelian genetics, bacterial genetics, the structure and function of chromosomes and genes, recombination and mutation, the control of gene expression, and population genetics. Provides a brief introduction to genetic engineering and biotechnology. Three hours of lecture and one threehour lab per week. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 255 General Ecology

A broad survey of the study of interactions of organisms with each other and their physical environment. This course addresses the dynamics of energy flow and nutrient cycling through ecosystems, as well as ecological processes operating at the individual, population, and community levels of organization. Emphasis is placed on the methods ecologists use to conduct their research. Three hours of lecture and three hours of laboratory per week. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 261 Zoology

A course designed to provide the biology major with an understanding of the diversity, taxonomy, ecology, and behavior of many phyla of animals, especially emphasizing the invertebrates. Allows the student to survey the diversity of animal forms in the environment and the contributions, both positive and negative, that they make in our everyday lives. Three hours of lecture and two hours of laboratory per week. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 275 Introduction to Forensic Death Investigation

A course that is the first in a sequence of courses designed to prepare students for careers in forensic death investigation. The course introduces students to the history, legalities, equipment, and procedures associated with post-mortem examinations. Students will
also be required to observe practical autopsy procedures. Four hours of classroom theory/ laboratory training per week, with observational times TBA. 4 credits PREREQUISITES: BIO 110, BIO 120 AND BIO 205. COREQUISITE: BIO 206.

## BIO 280SL Current Topics in Cell Biology

A service-learning course for biology majors designed to intergrate basic concepts of cell biology with current topics in the field.
Topics can include, but are not limited to cell cycle and cancer biology, signal transductoin and pharamacology implications, stem cells and regenerative medicine, cell sequences and aging, and neuron functioning and addiction. The course will emphasize experimental techniques used in the study of cell biology, and how to critique primary literature in the field. Additionally, as a servicelearning course, students will be exploring the social and ethical responsibilities of the field, as well as participating in a servicelearning project with a community partner. These experiences will provide a basis for student reflection pertaining to the influence of science in society and the role of the scientist to his or her community. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 300 Junior Seminar

An opportunity for junior biology majors to research current trends and topics in their discipline and present a seminar devoted to the topic of their choice. Junior presentations may be on any topic approved in advance by the seminar director. 2 credits

## BIO 301 Middle School Science-I The Physical and Earth Sciences <br> BIO 302 Middle School Science-II Physical Science and Space

A set of two courses designed to help prospective middle school teachers acquire the skills, knowledge, and attitude that will enable them to teach "good science" in their classrooms. The course will take advantage of the fact that students have inquiring minds and will encourage them to look for the cause and effect of things that are happening in the world around them. The course will increase teaching skills and content knowledge related to science instruction for the middle school grades and is designed to address the five guidelines established for courses in the Biology department. Through hands-on investigation in the physical and earth sciences, prospective middle school teachers will acquire knowledge in science, increase their skills in using science processes, and develop positive attitudes toward science. The course will emphasize the development of science teaching skills that teachers can apply in their classrooms and will also stress how to design, execute, and evaluate science lessons that are appropriate for expanding and refining the middle school student's understanding of themselves and their world. 4 credits each TOGETHER THESE COURSES FULFILL THE NATURAL SCIENCES LAI REQUIREMENT.

## BIO 303 Middle School Science-I Taxonomy, Classification, and the Hierarchy of Life <br> BIO 304 Middle School Science-II Biotechnology and Ecology

A set of two courses designed to promote science teaching competency by exposing prospective middle school teachers to a wide variety of topics and biological systems. Students will acquire the skills, knowledge, and attitude that will enable them to teach "good science" in their classrooms. The course will take advantage of the fact that students have inquiring minds and encourage them to look for the cause and effect of events happening in the world around them by examining, exploring, and questioning the cause and effect relationship of structure and function in the living world. The course will increase teaching skills and knowledge related to science instruction for the middle school grades. Through lecture and investigation of the life sciences, education majors will acquire knowledge in science, increase their skills in using science as a process, and develop a positive attitude toward science. The course will also stress how to design, execute, and evaluate science lessons that are appropriate for expanding and refining the middle school student's understanding of themselves and their world. This course directly addresses the five guidelines established for courses in the Biology department. 4 credits each TOGETHER THESE COURSES FULFILL THE NATURAL SCIENCES LAI REQUIREMENT.

## BIO 305 Middle School Science-I The Human Body, Health and Fitness

BIO 305 is designed to promote science teaching competency by exposing prospective middle school teachers to a wide variety of topics and biological systems relating to the human body and health and fitness. The course will cover each body system in detail, followed by specific aspects of health skills, mental and emotional health issues, nutrition, personal habits promoting a healthy body, and communicable and chronic diseases. Students will acquire the skills, knowledge, and attitude that will enable them to teach "good science" in their classrooms. The course will take advantage of the fact that students have inquiring minds and encourage them to look for the cause and effect of events happening in the world around them by examining, exploring, and questioning the cause and effect relationship of structure and function in the living world. The course will increase teaching skills and knowledge related to science instruction for the middle school grades. Through lecture and investigation of the life sciences, education majors will acquire knowledge in science, increase their skills in using science as a process, and develop a positive attitude toward science. The course will also stress how to design, execute, and evaluate science lessons that are appropriate for expanding and refining the middle school student's understanding of themselves and their world. This course directly addresses the five guidelines established for courses in the Biology department. 4 credits THIS COURSE PLUS ONE FROM BIO 301304 FULFILLS THE NATURAL SCIENCES LAI REQUIREMENT.

BIO 307 Pathophysiology I
BIO 308 Pathophysiology II
Course descriptions under development 2 credits each FOR NURSING MAJORS: COREQUISITE FOR BIO 307 IS NU 3181/3182; COREQUISITE FOR BIO 308 IS NU 3191/3192.

## BIO 310 Cell Biology

A study of the basic cellular and molecular mechanisms by which cells function: membrane transport, metabolism and ATP production, DNA replication, protein synthesis, cell movement, and division. Laboratories introduce students to cell culture, microscopy, centrifugation, electrophoresis, spectrophotometry, and other techniques used to study cells. Three hours of lecture; one threehour lab per week. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 335 Microbiology and Immunology

A comprehensive examination of the biology of microorganisms, including bacteria, fungi, protozoa, heleninths, and viruses. Emphasis is placed on, but not limited to, the bases of microbial diseases, control, prevention, treatment, and host defenses including immune responses and immunotherapies. Includes practical experience and bacteriological lab techniques. Three hours of lecture, one threehour lab per week. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 339 Pharmacology

A one-semester course designed to provide the biology major with an in-depth understanding of the pharmacologic principles regarding particular medical issues. Receptor mechanisms are applied as they relate to the therapeutic application of drugs and the major side effects and adverse reactions of commonly used drugs. Descriptions of drugs classified as autonomic, central nervous system, cardiovascular, endocrine, and chemotherapeutic agents are studied. 3 credits PREREQUISITES: BIO 110, BIO 120, CHM 111-113, AND CHM 112-114. COREQUISITES: CHM 211-213 AND CHM 212-214. BIO 205 AND 206 HIGHLY RECOMMENDED.

## BIO 357 Gross Anatomy

A course designed to provide the biology major with the unique opportunity to explore the details of human anatomy through cadaver dissection. This is a two-semester course, but the student can elect to take the credit for the course in either the Fall or Spring semesters. A minimum of two hours of dissection time per week is required. 4 credits PREREQUISITES: BIO 110, BIO 120, BIO 205 AND BIO 206.

## BIO 375 Autopsy Practicum I

A course that is the first in a two course sequence (BIO 375 and BIO 376) designed to provide biology majors in the autopsy specialist program with hands-on practical experience in autopsy techniques. Students in BIO 375 will initially gain experience through observations and gradually progress to assisting in the autopsy procedure. Beginning in the later stages of BIO 375 and continuing into BIO 376, student teams will perform complete autopsies in rotating fashion. Teams of three will begin with each member of the team performing one component of the autopsy (i.e. cranial, thoracic, and abdominal), and rotating in successive autopsies until all members of the team have performed a complete autopsy. Four hours of laboratory per week. 4 credits PREREQUISITES: BIO 205, BIO 206, AND BIO 275.

## BIO 376 Autopsy Practicum II

A second course in the autopsy practicum sequence is designed to provide the student with practical autopsy experiences. After completing BIO 375 (Autopsy Practicum I) the students will have had
hands-on experiences performing routine autopsy procedures. This second course will enhance their training by allowing the students to work with forensic pathologists, detectives, recovery and investigation personnel, and attorneys. This will also allow students to experience some of the legal issues associated with autopsy procedures, whether it be for criminal, civil, family, or insurance reasons. Four hours of laboratory/on-call time per week. 4 credits PREREQUISITE: BIO 375.

## BIO 390 Histology

An examination of cell and tissue structure primarily at the light microscopic level, although some electron microscopy of cell structure will be considered. The focus is on major tissue groups that make up the vertebrate body, and examines the contribution of each to the structure and function of the organism as a whole. Emphasis will be placed on the technology and histological methods used in preparing tissues for microscopic examination and study. 4 credits PREREQUISITES: BIO 110 AND BIO 120.

## BIO 400 Independent Study

A student-designed course of study in an area of biology not covered by current courses, under the guidance of a faculty member.
Requires the approval and sponsorship of a faculty member prior to registration. FOR BIOLOGY MAJORS ONLY. Credits vary.

## BIO 406 Animal Physiology

A comparative approach to the adaptive nature of animal function. This course addresses the diversity of solutions that have evolved in animals in response to environmental conditions presented in their natural habitats. Three hours of lecture and three hours of laboratory per week. 4 credits PREREQUISITES: BIO 110, BIO 120, CHM 111-113, AND CHM 112-114.

## BIO 420 Molecular Biology and Biotechnology

Provides the research-oriented student with an in-depth exposure to the tools and techniques of molecular biology and biotechnology. Includes molecular cloning, genetic engineering, DNA sequencing, protein expression and purification, immunological techniques, electrophoresis, and blotting. Three hours of lecture and three hours of lab per week. 4 credits PREREQUISITES: BIO 110, BIO 120, CHM 211213, AND CHM 212-214.

## BIO 475 Autopsy Specialist Externship I BIO 476 Autopsy Specialist Externship II

These externships are designed to give the senior student practical experience in the various venues where forensic evidence is gathered, analyzed, and ultimately utilized in legal settings. Two externship sites will be selected from the following general categories: coroners' offices, The Pennsylvania State Police, forensic laboratories, and law practices. The sites that are not utilized as components of BIO 475 will be included in BIO 476 Autopsy Specialist Externship II. 4 credits each PREREQUISITE: BIO 376.

## BIO 498/499 Senior Experience

A general survey of the field of biology through student presentation and discussion of major principles, problems, discoveries, and theories. Students pursue this experience under the direction of
a department member. One hour seminar and additional time in laboratory research or professional experience weekly.
2 credits each REQUIRED OF ALL SENIOR BIOLOGY MAJORS.

## CHEMISTRY

## CHM $100 \quad$ Chemistry and Society

An opportunity for the non-science major to learn chemical principles and methods in order to engage in decision-making activities related to real world societal issues that have important chemistry components. A few case studies, which may include global warming, ozone depletion, acid rain, energy conservation, and drug discoveries, are used to introduce the chemistry on a need-to-know basis. In every instance, the chemistry is set in its political, social, ethical, economic, and international context. Students are encouraged to use their analytical and critical thinking skills to evaluate information and assess the risks and benefits related to the issues studied. Three hours of lecture and three hours of lab per week. 4 credits FULFILLS NATURAL SCIENCES LAI REQUIREMENT.

## CHM $103 \quad$ Chemistry in Everyday Life

Chemistry in Everyday Life involves an examination of the basic definitions and theories of chemistry with emphasis on introductory aspects of inorganic, analytical, physical, organic, nuclear, and biochemistry. In addition to developing basic knowledge of chemical principles and introductory laboratory techniques, the course is designed to enhance the development of analytical thought. There is some emphasis on numerical problem solving and thought processes by which the problems can be solved. Three hours of lecture and one hour of lab weekly. 4 credits FULFILLS NATURAL SCIENCES LAI REQUIREMENT.

## CHM $105 \quad$ Principles of Chemistry

A one-semester introduction to general chemistry, organic chemistry, and biochemistry. Fundamental chemical theories within each of these areas are integrated to build an understanding of the chemistry of living systems at the molecular level and to provide a foundation for further study in the allied health professions. General chemistry emphasizes theories of inorganic, analytical, physical, and nuclear chemistry that support key concepts in organic and biochemistry. Major topics include: atomic structure, radioactive isotopes, ionic and covalent bonding, electronegativity and polarity, chemical equations and stoichiometry, intermolecular interactions, aqueous solutions and solubility, acid-base theory, kinetics, and thermodynamics. Organic chemistry is the study of the structures, properties, and reactivity of carbon-containing molecules, with emphasis on the functional groups and reactions of biomolecules. Biochemistry, the chemistry of life, expands general and organic chemical theories and applies them to the major classes of biomolecules: proteins, carbohydrates, lipids, and nucleic acids. The relationships between molecular structure, chemical and physical properties, and functions of biomolecules are explored.

The course consists of three hours of lecture, one hour of recitation, and two hours of laboratory per week. There are no prerequisites for this course, but high school chemistry and algebra are highly recommended. 4 credits FULFILLS NATURAL SCIENCES LAI REQUIREMENT.

## CHM 111 General Chemistry I Lecture <br> CHM 112 General Chemistry II Lecture

An examination of the basic definitions and theories of chemistry. First semester topics include stoichiometry, atomic structure, thermochemistry, molecular bonding, states of matter, solutions, and kinetics. Second semester topics include equilibrium, thermodynamics, nuclear and electro-chemistry, coordination compounds, and a brief introduction to organic chemistry and biochemistry. Inorganic descriptive chemistry is included throughout both courses. Three hours of lecture. 3 credits each FULFILLS NATURAL SCIENCES LAI REQUIREMENT ONLY WHEN TAKEN JOINTLY WITH CORRESPONDING LABORATORY COURSE (SEE BELOW). RECOMMENDED COREQUISITES: CC 102 AND MAT 152 OR MAT 160. CHM 113 IS A COREQUISITE FOR CHM 111 AND CHM 114 IS A COREQUISITE FOR CHM 112. CHM 111 IS A PREREQUISITE FOR CHM 112. THIS COURSE SEQUENCE IS OFFERED EACH ACADEMIC YEAR.

CHM 113 General Chemistry I Laboratory
CHM 114 General Chemistry II Laboratory
An introduction to the hands-on application of chemical principles and concepts as well as an introduction to basic laboratory instrumentation and equipment. First semester topics include practice in making good scientific measurements, density measurement, and several gravimetric and volumetric analyses of known chemical systems. Second semester topics include the study of chemical equilibrium, acid-base chemistry, redox chemistry, inorganic salt synthesis and characterization, and a basic organic synthesis and characterization. Three hours of laboratory weekly. 1 credit each FULFILLS NATURAL SCIENCES LAI REQUIREMENT ONLY WHEN TAKEN JOINTLY WITH CORRESPONDING LECTURE COURSE (SEE ABOVE). CHM 111 IS A COREQUISITE FOR CHM 113 AND CHM 112 IS A COREQUISITE FOR CHM 114. CHM 113 IS A PREREQUISITE FOR CHM 114. THIS COURSE SEQUENCE IS OFFERED EACH ACADEMIC YEAR.

## CHM 151 (BIO 151I, MAT 151I) Computer Applications for Science and Mathematics

An introduction to the practical application of computer hardware and software to problems in the sciences and mathematics. Topics include basics like using a graphical user interface and common office applications. More advanced topics include computer interfacing to instruments, mathematical modeling, curve fitting, molecular modeling, and others. No computer background is assumed. Three hours lecture/workshop/demonstration weekly. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT. PREREQUISITE: CHM 111, BIO 110, OR PCS 221; MAT 160; CC 100, CC 101, AND CC 102.

## CHM 185 (SO 185) Introduction to Forensic Science

An introduction to the use of science and the scientific method in law and criminal justice. Designed primarily for criminal justice
or science majors. Includes techniques from chemistry, biology, physics, and geology that are useful for evaluating crime-scene evidence. Topics include chemical analysis, microscopic analysis, fiber analysis, drug analysis, DNA analysis, blood analysis, and others. Three hours of integrated lecture and lab each week. Basic mathematics is used. 3 credits

## CHM 211 Organic Chemistry I Lecture CHM $212 \quad$ Organic Chemistry II Lecture

A two-semester sequence of courses which study the structure, properties, composition, reactions, and preparation (by synthesis or other means) of chemical compounds consisting primarily of carbon. Because of the unique properties of the element carbon, organic compounds exhibit an extremely wide variety, and the range of applications of organic compounds is enormous. They form the basis of, or are important constituents of, many products (paints, plastics, food additives, cosmetics, explosives, drugs, petrochemicals, pesticides, and many others) and, in addition, organic compounds form the basis of all life processes (biomolecules such as enzymes, proteins, amino acids). Specific attention is focused on the structurereactivity relationships in different classes of organic molecules, and the mechanistic aspects of reactions. Methods of spectroscopic analysis fundamental to the study of organic molecules are also examined. Three hours of lecture weekly. This course sequence is offered each academic year. 3 credits each
CHM 112 IS A PREREQUISITE FOR CHM 221. CHM 213 IS A COREQUISITE FOR CHM 211 AND CHM 214 IS A COREQUISITE FOR CHM 212. CHM 211 IS A PREREQUISITE FOR CHM 212.
$\begin{array}{ll}\text { CHM } 213 & \text { Organic Chemistry I Laboratory } \\ \text { CHM } 214 & \text { Organic Chemistry II Laboratory }\end{array}$
An experimental laboratory course to accompany the corresponding Organic Chemistry lecture course (CHM 211 or CHM 212). Students will gain firsthand knowledge of the properties and general reactivity of organic compounds through hands-on experimentation. In the first half of CHM 213, standard "wet-chemical" bench organic chemistry laboratory skills, such as distillation, crystallization, extraction, and chromatographic methods of analysis (among others) are learned. In the second half, these skills are reinforced with experiments designed to illustrate and reinforce lecture theory, including some multistep synthesis reactions. Hands-on training in the acquisition and interpretation using those methods of instrumental analysis most pertinent to the study of organic chemistry, (such as Fourier Transform Infrared Spectroscopy (FTIR) and Gas Chromatography (GC) is also provided. In addition, proper methods for documenting and reporting scientific experimentation are reinforced. In CHM 214 students will expand on and reinforce their knowledge of the properties and reactivity of organic compounds by performing a variety of experiments, including several multi-part synthesis reactions. Additional instrumental/ spectroscopic methods of analysis pertinent to the study of organic chemistry are also introduced, including Nuclear Magnetic Resonance (NMR). Three hours of laboratory weekly. 1 credit each
CHM 114 IS A PREREQUISISTE FOR CHM 213. CHM 211 IS A COREQUISITE FOR CHM 213 AND CHM 212 IS A COREQUISITE FOR CHM 214. CHM 213 IS A PREREQUISITE FOR CHM 214.

## CHM 255SL Environmental Chemistry

An introduction to the chemistry and chemical composition of the Earth's atmosphere, soil, and waterways. This highly interdisciplinary course will focus on the chemical processes influencing the composition and chemical speciation of natural systems (air, water, and soils); the chemical fate and mobility of contaminants in the environment; chemical processes and reactions that affect the toxicity and bioavailability of contaminants and chemicals; and aspects of contaminant remediation and pollution prevention (green chemistry). Current methods of energy production will be studied in terms of their efficiency and cleanliness. Questions of corporate and social responsibility regarding environmental stewardship and public health will be presented to and debated by the class. Four hours of class weekly (includes lab time). 4 credits FULFILLS SERVICE LEARNING REQUIREMENT. PREREQUISITE: CHM 212 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## CHM 285 Special Topics

This is a one-credit mini course that is designed to introduce students to selected specialized fields in the area of chemistry. Some examples of topics include separation techniques, advanced organic synthesis, photochemistry, and nuclear chemistry. The topics will vary each semester. 1 credit PREREQUISITE: CHM 212 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## CHM $3061 \quad$ Biochemistry (Interdisciplinary)

The science of biochemistry covers the arena where chemistry and molecular and cellular biology interrelate. This course is an interdisciplinary one-semester introduction to selected areas of biochemistry and will examine the chemistry of life from both the chemical and biological perspectives. The course will allow an in-depth examination of the structure and function of biological molecules such as carbohydrates, lipids, proteins, and nucleic acids. Also covered are the metabolic processes of organisms and bioenergetics. Three lecture hours weekly. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS. PREREQUISITES: BIO 120 AND CHM 212 OR PERMISSION FROM DEPARTMENT CHAIR.

## CHM 311 Inorganic Chemistry

An examination of the chemistry of the elements other than carbon. The course covers the physical and electronic structures of the compounds of these elements. Emphasis is placed on the chemistry of the transition metals, particularly as it relates to their biological occurrence and function. Three hours of lecture weekly.
3 credits PREREQUISITE: CHM 212 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## CHM $312 \quad$ Quantitative Analysis

An introduction to analytical chemistry. Deals with the basic theory of and experimentation in gravimetric and volumetric analysis, with emphasis on principles of chemical equilibrium. The course also includes selected topics in instrumental analysis and chromatography with an emphasis on quantitative applications. Two hours of lecture and four hours of laboratory weekly. 4 credits FULFILLS SKILLS INTEGRATION REQUIREMENT.
PREREQUISITE: CHM 212.

## CHM $385 \quad$ Nuclear Chemistry

This mini course is served to introduce students to the field of nuclear chemistry, as well as to show students the broad scope of nuclear science and how it pertains to our lives and is present throughout the universe. Topics covered will include the makeup of nuclei and subatomic particles, stability of nuclei and intranuclear forces, types of nuclear decay and their associated radiations, nuclear reactions and their energetics, nuclear reactions associated with stellar bodies and astronomical events, and applications of nuclear chemistry to modern day medicine. The class will meet for one hour, once a week for the entire semester. 1 credit PREREQUISITES: CHM 212, PCS 222, MAT 200 OR MAT 260, MAT 201 OR MAT 360.

## CHM 398/399 Junior Seminar

An opportunity for junior chemistry majors to research current trends and topics of interest in an area of chemistry and present a seminar and paper devoted to this topic. Students work in conjunction with a faculty mentor. The course covers such skills as working with the chemical literature, proper ways to critique a scientific report, and preparation and delivery of a technical scientific presentation. One hour weekly seminar. 1 credit each

## CHM 400 Independent Study

A student-designed course of study in an area of chemistry not covered by current courses, under the guidance of a faculty member. Requires the approval of the departmental chairperson and sponsorship of a chemistry department faculty prior to registration. Credits vary

## CHM $411 \quad$ Physical Chemistry I <br> CHM $412 \quad$ Physical Chemistry II

A study of the most fundamental aspects of chemistry. The first semester focuses on quantum mechanics and spectroscopy. Topics include the Schrödinger equation, atomic and molecular structure, chemical bonding, and magnetic resonance spectroscopy. The second semester focuses on thermodynamics and kinetics. Topics include the properties of gases, partition functions, the laws of thermodynamics, the Maxwell relations, equilibria, and molecular dynamics. Three hours of lecture and one hour of recitation weekly. 3 credits each PREREQUISITES: CHM 212, PCS 222, AND MAT 200 OR MAT 260. PRE- OR COREQUISITE: MAT 201 OR MAT 360. RECOMMENDED PRE- OR COREQUISITE: MAT 331. CHM 411 IS A PREREQUISITE FOR CHM 412.

## CHM 422 Instrumental Methods in Chemistry

An introduction to instrumental methods of chemical analysis. Methods covered include electronic absorption spectroscopy, IR spectroscopy, magnetic resonance spectroscopy, fluorescence spectroscopy, gas and liquid chromatography, electrochemical techniques, calorimetry, and others. Students are expected to demonstrate proficiency in each technique. An additional emphasis is placed on formal laboratory report writing and communication of scientific results. One hour of lecture and three hours of laboratory weekly. Offered each spring semester. 2 credits PREREQUISITE: CHM 312 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## CHM 423 Advanced Experimental Techniques in Chemistry

A capstone course for chemistry majors, CHM 423 expands upon and enhances laboratory skills acquired in the program curiculum by introducing the students to novel applications of chemical instrumentation, methodologies and techniques. Topics covered in the course may include a variety of absorbance and emission spectroscopic techniques, seperation techniques such as gas and liquid chromatography, electrochemical methods of analysis, as well as quantum mechanical calculations and computational modeling. An additional emphasis is placed on formal laboratory report writing and communication of scientific results. One hour of lecture and six hours of laboratory weekly. Offered each spring semester.
3 credits PREREQUISITE: CHM 312 OR PERMISSION FROM THE DEPARTMENT CHAIR. PRE- OR COREQUISITE: CHM 412.

## CHM 498/499 Senior Experience

An independent, professional experience within the field of chemistry (or another science) that may involve laboratory research, an internship, student teaching, or other independent project. The experience is designed in consultation with a faculty mentor. Onehour seminar weekly, plus additional time needed to complete the experience. This course sequence is offered each academic year.
2 credits each PREREQUISITE: CHM 399.

## COMPUTER SCIENCE

## CSC 110 Introduction to Computer Programming

The student is introduced to the fundamental concepts of computer programming in an object-oriented language. The object-oriented approach is introduced using the Alice programming environment. The student then transitions to the JAVA programming language. Three hours of lecture and one two-hour laboratory weekly. 4 credits

EARLY CHILDHOOD EDUCATION

## EC $200 \quad$ Child Development (Birth to Age 5)

This course provides an in-depth learning experience in child development theory and best practices that apply to the care and education of children from birth to 5 years of age. Assessment and observation techniques are carefully aligned with curriculum and program planning so students may see the strong connection between assessment and curricular practices. Principles of physical, social-emotional, cognitive, moral, aesthetic, and language development will be covered within the context of family and
community. Students will examine issues relating to the development of children, ages 3 to 5 years, from an historical, cultural, and family perspective, as well as through current theories and research. As a stage of development, early childhood will be studied and analyzed across the full range of normative, non-normative, inter-and intravariability for all young children. Students will learn and practice the basic skills of observation. Students will be required to apply theory to daily practice. 3 credits

## EC 201 Orientation to Early Childhood Education

This course will be based on principles of child development, including understanding how children learn from birth to 9 years of age, and focusing on all the domains of the child's development. The relationship between each child and the teacher is the basis of all effective teaching. Students will examine the historical and psychological perspective of early childhood education in order to understand the context and particular challenges of early childhood professionalism today. The principles and stages of child development, birth to 9 years of age, will serve as the foundation for defining the essential components of a successful learning environment for young children. Family and community relationships will be emphasized as well. 3 credits PREREQUISITE FOR ALL OTHER EARLY CHILDHOOD COURSES EXCEPT FOR CHILD DEVELOPMENT cOURSES.

## EC 205 Advanced Child Development Studies

This course provides an in-depth learning experience in child development theory and best practices that apply to the care and education of children from birth to five years of age. This course is designed for transfer students who enter Carlow with child development courses. This course is meant to introduce students to Carlow's academic learning community and build upon the developmental foundation students have achieved at their previous education institution. Advanced assessment and observation techniques are carefully aligned with curriculum and program planning so students may see the strong connection between assessment and curricular practices. Principles of physical, socialemotional, cognitive, moral, aesthetic, and language development will be covered in the context of family and community. Students will examine issues relating to the development of children, ages three to five years, from an historical, cultural and family perspective as well as through current theories and research. As a stage of development, early childhood will be studied and analyzed across the full range of normative, non-normative, inter- and intravariability for all young children. Students refine basic skills of observation. Students will be required to apply theory to daily practice. 3 credits

## EC 206/PY 216 Child Development: Ages 6 to 9

This course addresses the physical, cognitive, and psychosocial development of children in grades PreK through four. The student is introduced to major concepts and theories of child development and the scholarship and research that inform these concepts and theories. The course is designed to promote connections between one's understanding of child development and how that understanding informs those who work with this age group. 3 credits PREREQUISITES: EC 200, EC 201.

## EC 207 Play as Learning

This course provides an overview of the role and value of play in child development and learning. Students will examine stages of children's play and learn how play reflects and enhances social, emotional, cognitive, and physical development. Topics include various perspectives on the meaning of play, current theories about play, research on children's play, and the role of play during various stages of development, from infancy through the school-age years. Students will design an appropriate play environment for early childhood classrooms. They will demonstrate ability to assess children' play skills and adapt activities to support and facilitate symbolic representation through play. 3 credits PREREQUISITES: EC 200, EC 201.

## EC 303 Math for the Developing Child

This course provides the theoretical principles and methodologies in the teaching of mathematics for prospective teachers of children ages 3 to 9 years old-and about how the mathematical mind of the child works. The course of study is designed to promote mathematics teaching competence; review exemplary curriculum materials, and design the creation of standard-based, active learning environments that foster curiosity, confidence, and persistence; and encourage the successful acquisition of knowledge of important mathematical relationships, number sense, and the ability to solve problems in the early years. Participants will strive to gather examples of current teaching methodologies through a progression of field observations.
3 credits PREREQUISITES: EC 200, EC 201.

## EC 304 Science for the Developing Child

This course provides the theoretical principles and methodologies in the teaching of science for prospective teachers of children ages 3 to 9 years old—and about how the scientific mind of the child works. The course of study is designed to promote science teaching competence, review exemplary curriculum materials, and design the creation of standards-based, active learning environments that foster curiosity, confidence, and persistence, and encourage the successful acquisition of knowledge and skills of scientific ideas necessary to understand and explain phenomena of the natural world. Participants will strive to gather examples of current teaching strategies through a progression of field observations. 3 credits PREREQUISITES: EC 200, EC 201.

## EC 307 Curriculum and Methods for Early Childhood Education with Practicum

This course will be based on principles of child development, including understanding how children learn from birth to 9 years, and focusing on all the domains of the child's development. The course hinges on an understanding of how children grow and develop socially, emotionally, morally, cognitively, aesthetically, physically, in language, and as part of their families and communities. Five effective models for early childhood classrooms will be examined. The theoretical foundation for the course is rooted in child development theory, multiple intelligences, and contemporary neuroscience. Formal and informal assessment strategies will be a part of diversification of curriculum and instruction. The course requires a 40 hour practicum experience. 3 credits PREREQUISITES: EC 200, EC 201, EC 207 AND EC 318.

## EC 311 Infant-Toddler Program and Practicum

This course provides an in-depth learning experience in best practices that applies to the care and education of children from birth to 3 years of age. Principles of development and infant/toddler milestones form the basis for making decisions about effective caregiving practices. Emphasis will also be placed on the child within the context of the family as a major factor to consider when determining high-quality infant/toddler care outside the home. This course combines in-class learning with a 40-hour practicum experience where students will have the opportunity to interact with children and caregivers and apply theory and in-class learning. Students will also study the sociological and political contexts that affect programs for infants and toddlers. 3 credits PREREQUISITES: EC 200, EC 201.

## EC 313 Family and Community Partnerships

This course focuses on recognizing and implementing partnership relationships among the child, the family, and the community. Family is recognized as a primary unit of a diverse and unique nature. Family systems are examined to understand family structure and function. Likewise, family is viewed in its role in a child's development. The family and community will be examined using strategies for meeting cross-cultural needs. Knowledge of community resources and family methods to find and access these resources will be examined as well. 3 credits PREREQUISITES: EC 200, EC 201.

## EC 318 Communication and Reading Development

This course provides an overview of language and communication development in young children and a study of the acquisition of early literacy skills. Current research on effective strategies for enhancing language and literacy skill development are presented and discussed. Participants design experiences in language development and early literacy for children from birth through kindergarten.
3 credits PREREQUISITES: EC 200, EC 201.

## EC 325 Early Childhood Practicum

This course will enable students to do field experience in a K-4 classroom. Students will be placed in a classroom one day a week for most of the school day. Students will also participate in a weekly seminar that will facilitate the practicum experience. Students will present lessons and work with small and large groups of children. The expectations will increase as the students' competencies grow. 3 credits PREREQUISITES: EC 200, EC 201, EC 303, EC 304, EC 307, EC 311, EC 318. COREQUISITE: EC 403.

## EC 401SL Professional Communities of Practice

This course has been designed to facilitate the students' identities as scholar/practitioner professionals in the field of early childhood education and so that students can engage in professional communities of practice. This is also a Service-Learning course. At Carlow, service-learning is discipline-based and contains a set of organized community-based learning activities through which students have direct, hands-on learning while responding to community needs. Service-learning courses provide structured opportunities for students to connect their service activities to course content through reflection. Reflection includes an examination of
one's personal connection to service in light of the Mercy mission. Students will work with their county's community liaison from the Education for Children and Young Experiencing Homelessness (ECYEH) organization. The community liaison will identify homeless shelters in the Pittsburgh area that participate in Together Time; an interactive, activity-based learning program that strengthens relationships between parents and young children as they play and learn together and provides essential skills for future academic and social success. 15 hours of service-learning is required. 3 credits FULFILLS GLOBAL AND SERVICE LEARNING REQUIREMENTS. PREREQUISITES: EC 200, EC 201, EC 207, AND EC 307.

## EC 403 Understanding Early Childhood Curriculum for Peace and Justice

Based on principles of child development, this course is designed to engage teacher candidates in various experiences that provide opportunities for understanding early childhood curriculum in its complex and multiple facets. The focus on peace and justice teaching emphasizes the importance of developing attitudes and behaviors that can contribute to building a democratic, ecologically responsible society. This includes encouraging early childhood educators to nurture dispositions in young children towards collaboration, curiosity, engaged inquiry, ecological consciousness, fairness, and empathy. Teacher candidates will have opportunities to explore the philosophical, theoretical, and practical dimensions of the PreK through grade four school curriculum. The critical areas of cultural diversity, racism, gender equity, and real world problem solving, as they relate to the PreK through grade four curriculum, are highlighted. 3 credits PREREQUISITES: EC 200, EC 201, EC 303, EC 304, EC 307, EC 311, EC 318 COREQUISITE: EC 325.

## EC 406/407 Pre-School and Primary Student Teaching and Seminar

This course will provide opportunities for experience, discussion, and reflection on issues related to positive classroom environment; behavior support; building relationships; managing time; planning and preparation; assessment for planning; integrating the curriculum; instructional delivery; teaching to diverse learners; collaborative teachers and collaborative children; and developmentally appropriate practices. The child will be recognized as the learner and the learning community will be the classroom, the school, the family, the community, and professionalism. Evaluation of student teaching in early childhood education, both preprimary and primary, will be conducted by examining attendance and class participation; lesson plans, unit plans and teachable moments; weekly reflective logs; student teaching portfolios; midpoint and final evaluations of each site mentor teacher; and weekly observations and interactive meetings between college supervisor/mentor and student. Midpoint and final evaluations will use the PDE 430 form. 12 credits ( 6 credits for each placement) PREREQUISITES: COMPLETION OF ALL EARLY CHILDHOOD EDUCATION CERTIFICATION REQUIREMENTS WITH A MINIMUM GPA OF 3.0. NOTE: NO OTHER COURSES MAY BE TAKEN WHILE A STUDENT IS REGISTERED FOR EC 406/EC 407 WITHOUT SPECIAL PERMISSION OF THE CHAIR OF EARLY CHILDHOOD EDUCATION PROGRAM.

## EC 410 Student Teaching and Seminar

This course is deisgnated in special circumstances for students who complete their student teaching on their jobs site. Special permission must be obtained and this is only granted in specific circumstances.
12 credits PREREQUISITES: EC 303, EC 304, EC 403, EC 325

## EC 415 Senior Capstone

Students electing to complete the early learning and development degree will work with an early childhood faculty member to design a final senior capstone internship or project that will serve as the culminating capstone event of the program.
3-12 credits PREREQUISITES: EC 303, EC 304, EC 403, EC 325

## EDUCATION

## ED 200 Pre-Teacher Assessment

The belief that teaching is an art has evolved from the experiences of professionals in the field. Research has taught us that success in the classroom reaches far beyond the use of textbooks, tests, and projects. The personal characteristics of the teacher have a powerful impact on their students and their classroom performance. Six of these characteristics are the focus in this course. The assessment process is diagnostic and leads to information that the student can use as she/he establishes goals. 3 credits

## ED 282 Learning Theory

This course focuses on cognitive theories that stress learners' constructions of beliefs, skills, strategies, and knowledge. Beginning with historical perspectives and progressing to cognitive theories and processes of learning, this course will require students to examine their beliefs about learning, align these with existing theories, and determine how to apply learning principles to improve teaching and learning. Current information regarding the neuroscience of learning, content-area learning, and motivation will be blended with the aforementioned theories to present a unified perspective of learning in educational settings. 3 credits +30 hour field placement

## ED 305 Integrating the Arts in Early Childhood

Development of one's own artistry along with facilitation of the arts with children. Integrating the arts lvisual arts, creative writing, music, movement, and creative play) into all aspects of the curriculum. Recognition of the arts as a way of knowing. 3 credits

## ED 307 Teaching English Language Learners, PreK-12

This course provides both an introduction to the principles of second language acquisition, with a focus on linguistics, developmental factors, and cross-cultural awareness, as well as an introduction to methods in teaching English language learners (ELLs) from PreK to grade 12. Techniques for developing the conversation and literacy skills of English language learners in the mainstream classroom will be presented. Students will learn the availability of school and community resources to assist ELLs in language acquisition and content learning, and ways to promote parental/family involvement.
3 credits + 15-hour field placement

## ED 308 Assessment and Intervention

This course will provide the beginning middle-level teacher with a comprehensive menu of assessment techniques for evaluating how learners think, perform, and apply what they know. Students will learn how to assess the following: a learner's knowledge base, a student's declarative and procedural knowledge, cognitive and metacognitive strategies, transfer skills, and habits of mind. 3 credits

## ED 312 Reading and Language Arts Methods

This course includes an examination of the philosophical orientation, pertinent research, and understanding of the reading process. Learners will construct their own philosophy of teaching reading and writing. They will apply learned strategies by developing lessons for students in a classroom or after school program. This field experience will take place with students in grades one through four. Clearances are needed for the field experience. 3 credits +15 hour field placement PREREQUISITES: EC 200, EC 201, AND EC 318.

## ED 370 Teaching and Professional Growth

The primary emphasis of this course is portfolio development including the refinement of select artifacts, exploration of the teacher certification process and other professional support entities for educators, and critical review of contemporary issues in education. As a culminating activity, students will participate in a mock interview. 1 credit

## ED 409 Irish Educational and Cultural Institutions

Designed to prepare students intending to complete a student teaching experience in Northern Ireland and for students interested in discovering Ireland's rich history including study of its political systems, educational systems, and cultural institutions. The course is taught by 'embedded faculty' living and working in Northern Ireland and delivery will include video and online conferences with experts in a variety of subjects from Northern Ireland and the Republic of Ireland, as well as traditional classroom discussions. 3 credits FULFILLS GLOBAL REQUIREMENT (ELECTIVE COURSE).

## MIDDLE LEVEL EDUCATION

## EDML 321SL Reading and Social Studies Methods

This course is the foundational basis for teaching reading and literacy development in the middle level classroom, grades foureight. Current theory, research, and techniques are integrated with valid traditional views of teaching reading to a diverse population of children and their needs. Views of the process of reading, emergent literacy, syntax and semantics, fluency, major approaches and materials for teaching reading, writing, speaking, assessment of students, classroom organization, communication with parents, and integrating computer technology are addressed. Specific skills in teaching phonemic awareness, phonics, reading fluency, and direct, explicit comprehension instruction are emphasized. In
addition, learning theory relevant to assessment and intervention in student learning is included in class and implemented in the field experience. Pre-service teachers will develop a philosophy that encompasses all the major components of reading instruction to ensure literacy for all children. Students will also gain knowledge of social studies methodology at the middle level, grades four-eight. They will develop an understanding of Pennsylvania and national social studies standards and their relationship to instruction and assessment. Learners will create a framework for learning units and projects that are student-centered investigations into historical events, government, civic, geographic and economic features, and the current social environment in which they live. A multicultural perspective will help participants develop culturally relevant pedagogy in the teaching of social studies. A focus on current research and practice in urban education will prepare teachers to become leaders in urban education and school reform.
3 credits + 15 hour field placement FULFILLS SERVICE-LEARNING REQUIREMENT. PREREQUISITES: ED 200, ED 282.

## EDML 323 Middle Level Math and Science Methods

This course is a comprehensive study of the theoretical principles requisite to teaching mathematics and science at the middle school level. The course is designed to offer pre-service teachers direction in the organization and implementation of meaningful mathematicslearning and science-learning experiences through the use of research-based curricula and problem-solving processes applicable to diverse populations of students and classroom environments. The course focuses on the development of instructional leaders in mathematics and science. It encourages meaningful habits of inquiry, collaborative effort, and reflective praxis into teaching and learning. Participants will strive to implement research-based approaches during a required 15 -hour supervised field placement. 3 credits +15 hour field placement PREREQUISITES: ED 200, ED 282.

## EDML 400 Understanding Middle Level Curriculum

This course is designed to engage middle level teacher candidates in various experiences that provide opportunities for understanding curriculum in its complex and multiple facets. Teacher candidates will have opportunities to explore the organization and philosophy of middle school education, as well as theoretical and practical dimensions of the middle level school curriculum. Teacher candidates will probe the various aspects of curriculum and the ways that teachers facilitate learning in middle level classrooms through the environment, the materials, the learning experiences, the sequencing of events, the interpersonal interactions, and the adaptation of instruction to diverse students. Teacher candidates will create an integrated curriculum plan based on an understanding of meaningful learning experiences and motivation, appropriate content and subject matter in the fourth through eighth grades, sound instructional strategies, the use of formal and informal assessment strategies to plan and improve instruction, and current skills in the use of educational technology. Finally, teacher candidates will engage in reflection and evaluation related to teacher professionalism. This course is designed to be taken during the semester directly preceding EDML 424, 425, 426 or 427 . 3 credits +30 -hour field placement in a middle level setting.

| EDML 424 | Middle Level English/Language |
| :--- | :--- |
|  | Arts Student Teaching |
| EDML 425 | Middle Level Math Student Teaching |
| EDML 426 | Middle Level Science Student Teaching |
| EDML 427 | Middle Level Social Studies Student Teaching |

Student teachers/teacher candidates are placed in a middle level (grades four-eight) classroom for eight weeks for a dual concentration or 16 weeks for a single concentration. The mentor teachers at the school oversee the daily experiences of the student teachers. Student teachers will be observed daily by the mentor teacher and weekly by the University mentor/supervisor. The University mentor will meet with the mentor teacher to discuss the direction of the student teaching experience and the progress of the individual student teacher. The director of student teaching will hold bi-weekly seminars at the University. The seminar is designed as an ongoing dialogue focusing on various aspects of the student teaching experience and together in one group for the first hour, and then meets in small groups with their university mentors for the second hour. Seminar topics may include lessons and unit planning, classroom organization and management, teaching strategies, evaluation processes, communication skills, writing resumes, certification requirements, job interviews, preparation of a portfolio, and reflective teaching that supports the final presentation at the Celebration of Teaching held at the end of the semester.
6 credits or 12 credits PREREQUISITES: COMPLETION OF ALL MIDDLE LEVEL EDUCATION CERTIFICATION REQUIREMENTS WITH A MINIMUM GPA OF 3.0. NOTE: NO OTHER COURSES MAY BE TAKEN WHILE A STUDENT IS REGISTERED FOR STUDENT TEACHING WITHOUT SPECIAL PERMISSION OF THE CHAIR OF MIDDLE LEVEL EDUCATION.

ENGLISH

## EN 101 Introduction to Literature

Students read and analyze cross-cultural prose, poetry, and drama. Writing that focuses on literary analysis is an integral part of the course. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 180 (CM 180) Journalism Practicum

Students practice newswriting, editing, and crafting other journalistic pieces for the student newspaper. This course provides hands-on experience in all aspects of production of a student newspaper, including design, layout, and editorial practices.
1 credit; may be repeated.

## EN 200 Introduction to Creative Writing

Students read and practice writing a wide range of poetry, creative nonfiction, and fiction, and learn to critique work in a workshop setting. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

EN 203 Creative Nonfiction: Description, Narration, and Dialogue
In this introductory creative nonfiction course, students examine and practice description, narration, and dialogue, as they explore how writers show and tell life stories, making scenes, situations, and events come alive on the page. Students will also critique established authors' work and respond to in-class writing prompts, as well as sharing their own writing and giving feedback to peers. 3 credits

## EN 205 Fiction I: Character, Setting, and Plot

In this introductory course in the reading and writing of fiction, students read a range of authors, from Nathaniel Hawthorne to Zadie Smith, and write critical papers, as well as their own creative works that they share through peer review. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 207 Chaucer

Students explore the art and language of Chaucer through a critical reading of his short poems, romances, and The Canterbury Tales. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 208 Poetry I: Finding Your Voice

In this introductory course in the reading and writing of poetry, students experiment with writing their own poetry as a way to begin to find their own voice. Students read individual collections of poetry, write critical papers, and critique each other's work in a workshop setting. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 216 Special Topics: Poetry

This course provides a focused examination of a particular topic, such as African American women writers, the Modernists, or LGBT writers. Students engage in critical reading and writing, and may do some original creative writing. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 217 Special Topics: Fiction

This class is an in-depth exploration of a particular topic related to fiction, such as fiction shorts or imagination and fiction. The course includes critical reading and writing, as well as students' original creative works based in reality. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 218 Special Topics: Creative Nonfiction

This course is a creative examination of a particular topic related to creative nonfiction, such as flash creative nonfiction or journeys. The class includes critical reading and writing as well as original creative writing of true life experiences. 3 credits
FULFILLS LITEARY ARTS LAI REQUIREMENT

## EN 219 Literature in Translation

This class explores poetry, fiction, drama, and/or essays in translation. Students research, present, and write about international authors whose writing has been translated into English. Students may write creatively in response. This course meets the major requirement for the International Language/International Study cluster. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

EN 220 Introduction to Linguistics
This course provides an introduction to the study of language from structural, historical, social, and psychological perspectives. Language acquisition, its systematic nature (phonology, morphology, and syntax), and its social and geographic variations are elements of the course. 3 credits

## EN 223 Creative Nonfiction I

In this introductory course that explores the parameters of creative nonfiction, students read and critique a range of authors, from Faith Adiele to Joan Didion. Students write their own creative nonfiction pieces and respond to in-class writing prompts as well as share and give feedback to their peers. 3 credits

## EN 229 Creative Nonfiction II

This advanced creative nonfiction course delves deeper into the genre's parameters: telling true stories, creatively. Students will read and critique authors' work from an established list and write creative nonfiction personal essays and memoirs. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 2331 (WS 233I) Visions of Social Change: Global Women's Writing

This interdisciplinary course draws on the pedagogy and disciplines of women's studies and English to explore global women's writing about social justice. The interdisciplinary approach of the literary materials and women's studies perspectives is integrated into students' readings, research, and collaborative in-class projects. This course meets the major requirement for the International Language/ International Study cluster. 3 credits
FULFILLS WOMEN'S STUDIES LAI, GLOBAL, AND INTERDISCIPLINARY, REQUIREMENTS.

## EN 238 Shakespeare's Sisters

This course explores the women writers of 16th, 17th, and 18th century England. Students read drama, poetry, essays, and other texts related to these fascinating women who blazed a trail for later women writers. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 239 Poetry Studies: Workshop

This beginning course in the reading and writing of poetry, focuses on the workshop format and encourages students to share their work and experiment with reading their work aloud. Students will read individual collections of poetry and anthologized works, write critical papers on craft, and critique each other's work in a workshop setting. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 241 Poetry II: Sound, Rhythm, and Line

This intermediate course in the reading and writing of poetry has a focus on the development of craft. Students experiment with sound, rhythm, and the line as they write their own poetry. Students read individual collections of poetry and anthologized works, write critical papers on craft, and critique each other's work in a workshop setting. 3 credits

EN 242 Fiction II: Workshopping and World Building
An intermediate course in the reading and writing of reality-based fiction, this class focuses on the workshop format where students practice giving and receiving critique, with emphasis on integrating others' feedback. Students also will read a range of authors to identify what works and why. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 244 Organizational Writing

This class gives students practice in writing documents used for internal and external communication in organizations. Assignments offer experience writing for non-profit and for-profit settings, often with a social justice advocacy focus and a real-world audience or client. 3 credits

## EN 252 Literature and Film

This course examines the connections between a literary work and its film adaptation, with a focus on cinematic style and literary motif or theme. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 260 (CM 260) Writing for Media

An examination of the principles and practice of writing for media. Students gain experience in writing tightly organized, concise, "hard news" stories. Students will learn interviewing and basic investigative skills, and they will practice writing for print and online media sources. 3 credits

## EN 265 Classical Backgrounds to English Literature

An examination of Greek and Roman literature in translation, this class focuses on the influence of classical literature on contemporary fiction, drama, film, and poetry. Students analyze influence on works such as the Harry Potter series, the film 0 Brother Where Art Thou, and the poems of Louise Glück. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 270 Survey of English Literature I

This class provides an introduction to major works of English literature from Beowulf to the mid-18th century. Students analyze works in relation to their historical/cultural contexts and practice critical writing about the works. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 271 Survey of English Literature II

This class provides an introduction to major works of English literature from the late 18th century to the present. Students analyze works in relation to their historical/cultural contexts and practice critical writing about the works. 3 credits

## EN 2861 (PY 286I) The Psychology of Literature

This course explores the connection between psychological concepts and literary texts. Students will examine myths, fairy tales, contemporary fiction, drama, and poetry from literary and psychological perspectives, analyzing parallels between psychoanalytic theory and authors' characters and, at times, authors' lives. This interdisciplinary approach encourages students to discover and articulate how psychology and literature reflect the core concepts that define humanity. 3 credits

## EN 3001 (WS 3001) Environmental Justice

This interdisciplinary examination of environmental justice issues explores works by various authors and contemporary films. The interdisciplinary approach of the literary materials and women's studies perspectives is integrated into students' readings, research, and collaborative in-class projects. 3 credits
FULFILLS LITERARY ARTS AND WOMEN'S STUDIES LAI AND INTERDISCIPLINARY REQUIREMENTS.

## EN 301 Shakespeare

This course focuses on William Shakespeare's comedies, tragedies, histories, and romances, read within cultural and generic contexts. Students analyze the plays' complex depictions of gender norms, race, politics, family dysfunction, and other controversial topics, as they were understood during the Renaissance and are relevant for today. The course includes viewing of film adaptations and (when possible) live performances. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 305 Survey of American Literature I

This course provides an introduction to major works of American literature from the 17th century through the Civil War. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 306 Survey of American Literature II

This course provides an introduction to major works of American literature from the Civil War until the present. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 308 Arthurian Legend

This course provides an introduction to works in the development of Arthurian tradition. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN $309 \quad$ Crime Fiction

This exploration of crime literature traces the genre from its roots in the works of Poe and Doyle to its present incarnations in novels like The Girl with the Dragon Tattoo. Students read, write, and present analysis of the established traditions of the mystery genre and contemporary transformations of those traditions in fiction, television, and film. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 310 Irish Literature

This study of drama, fiction, and poetry by Irish writers examines the cultural/historical contexts for the works. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 319 Victorian Writers

This course examines novels by 19th century British writers and the cultural/historical contexts for the works. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN $320 \quad$ Modern British Writers

This course explores novels, poetry, and drama by 20th century British writers and post-colonial writers, including Woolf, Eliot, Joyce, and Lawrence. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 330 (CM 330) Feature Writing

This course examines the principles and practices of feature writing. Students gain experience in interviews, personality profiles, narratives, sidebars, and other forms of "soft news" pieces for publication in print or online. 3 credits

## EN $334 \quad$ Advanced Fiction: The Art of Storytelling

This intermediate course in the reading and writing of fiction provides opportunities for students to experiment with craft to create fullbodied stories that can enrich and enthrall an audience. Students respond to in-class writing prompts and participate in workshopping. 3 credits

## EN 340 World Literature

This class provides a solid foundation in global perspective through an introduction to some of the greatest non-American and nonBritish works of literature. 3 credits FULFILLS LITERARY ARTS LAI, AND GLOBAL REQUIREMENTS.

## EN 343 Poetry Seminar: Image and Form

This advanced course in the reading and writing of poetry has a focus on the further development of craft. Students experiment with form, image, and movement as a way to find the heart and soul of the poem. The course includes intensive reading and critical response to the work of major poets, critique of each other's work in a workshop setting, and critiques and conferences with instructor. 3 credits

## EN 344 Advanced Fiction: Developing Your Craft

In this creative writing class, students weave together the elements of character, plot, and setting to create more nuanced and exciting fiction that is based in reality but takes the reader into unfamiliar territory. Students analyze authors' works and integrate identified techniques to enhance their own writing. The course includes in-class writing prompts and workshopping. 3 credits

## EN 346 Technical Writing

In this professional writing course, students develop skills in analysis of processes and in writing concise professional pieces, such as technical descriptions, specifications, requests for proposals (RFPs), product development plans, policies, processes, procedures, instructions, short reports, and related correspondence. 3 credits

## EN $347 \quad$ Foundation Proposals

In this professional writing course, students develop substantial proposals and engage in grant writing processes appropriate for corporate or non-profit foundations. Proposals often have a social justice focus and a real-world audience or client. 3 credits

## EN 348 Strategic Plans

In this professional writing class, students practice and apply the processes of writing strategically, often developing a strategic plan for a real-world client. After analyzing information from a variety of sources, students use qualitative and quantitative reasoning to write a creative and imaginative, yet practical, strategic plan. 3 credits

## EN 349 Government Grants

In this professional writing class, students develop major proposals and engage in grant writing processes appropriate for state or federal grants. Assignments include lengthy proposals or proposal sections that seek funding for a specific program or project, often with a social justice emphasis, for real-world projects and clients whenever possible. 3 credits

## EN 351I (SW 351I) Literature and Public Policy

This interdisciplinary course examines the relationship between authors whose works inspired or reflected social justice activism and public policy changes in the 19th and 20th centuries. The interdisciplinary approach of the literary materials and social work perspectives is integrated into students' readings, research, and collaborative in-class projects. Students read and analyze fiction, such as Maggie: Girl of the Streets; drama, such as A Raisin in the Sun; and music, such as "Strange Fruit." 3 credits FULFILLS LITERARY ARTS AND SOCIAL/BEHAVIORIAL SCIENCE LAI, AND INTERDISCIPLINARY REQUIREMENTS.

## EN 358 Poetry: Writing a Manuscript

This advanced course in the reading and writing of poetry has a focus on the development of a manuscript of poems. As students put a manuscript together, they learn about order, shaping, and formatting a manuscript of poetry. Assignments include intensive reading and critical response to the work of major writers, plus critique of each other's work in a workshop setting. Students also engage in critique and conferences with the instructor. 3 credits PREVIOUS CREATIVE WRITING EXPERIENCE RECOMMENDED OR PERMISSION FROM THE DEPARTMENT CHAIR.

## EN $370 \quad$ Creative Nonfiction: Place

This advanced course in the reading and writing of creative nonfiction focuses on place. Students read and critique a variety of authors who use place as a "character." The course also explores travel as part of the writer's journey. Students write creative essays and stories, critical papers, and respond to in-class writing prompts and workshopping. 3 credits FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN 400 Independent Study

This class is a specialized study in which the student engages independently, with the guidance of a faculty member, on a literary topic of interest. 1-3 credits OPEN TO ALL STUDENTS WITH DEPARTMENT CHAIR PERMISSION.

## EN 405 Internship

For internship credit, students engage in practical work experience through placement negotiated with a faculty member prior to registration. Open to sophomores, juniors, and seniors. Pass/Fail only. 1-3 credits

## EN 406 Fiction: Writing a Manuscript

This advanced course in the reading and writing of fiction has a focus on the development of a manuscript of short stories or a novel. With faculty, students develop a reading list of significant authors for critical analysis, engage in intensive reading and critical response to
the works, and critique other students' work in a workshop setting. Assignments also include critique and conferences with instructor. 3 credits PREVIOUS CREATIVE WRITING EXPERIENCE RECOMMENDED OR PERMISSION FROM THE DEPARTMENT CHAR.

## EN $410 \quad$ Madwomen in the Attic: Creative Nonfiction

This writing-intensive study with women creative nonfiction writers explores varying themes. Students engage in critical reading and response to the work of major writers and critique each other's work in a workshop setting. Pass/Fail. 3 credits; may be repeated PREREQUISITE: PERMISSION OF THE DIRECTOR OF THE CREATIVE WRITING PROGRAM.

## EN 412 Writing One's Life: Creative Nonfiction

This advanced course in the reading and writing of creative nonfiction focuses on the form of autobiography that is a slice of life written by everyday people. Students read a vari-ety of authors, write true life stories, write a critical review of a book, respond to in-class writing prompts, and engage in workshopping. 3 credits
FULFILLS LITERARY ARTS LAI REQUIREMENT.

## EN $420 \quad$ Madwomen in the Attic: Fiction

This writing-intensive study with women fiction writers explores varying themes. Students engage in critical reading and response to the work of major writers and critique each other's work in a workshop setting. Pass/Fail. 3 credits; may be repeated PREREQUISITE: PERMISSION OF THE DIRECTOR OF THE CREATIVE WRITING PROGRAM.

## EN 435 Madwomen in the Attic: Poetry

This writing-intensive study with women poets explores varying themes. Students engage in critical reading and response to the work of major writers and critique each other's work in a workshop setting. Pass/Fail. 3 credits; may be repeated.
PREREQUISITE: PERMISSION OF THE DIRECTOR OF THE CREATIVE WRITING PROGRAM.

## EN 444 Senior English Project

During this capstone experience for senior English majors, students work with a faculty mentor to complete a substantial literary analysis that may revise and develop an essay written for another literature class. Students meet regularly with their faculty mentor to select a topic, conduct research, draft, and write their thesis over two semesters, receiving an "IP" grade at the end of the first semester. Students present a section of their completed thesis to the English faculty and other students. If the project extends past the two semester deadline, students will be required to register for IS 400. Pass/Fail. 2 credits

## EN 445 Senior Creative Writing Portfolio

During this capstone experience for senior creative writing majors, students work with a faculty mentor to revise and complete a manuscript of original poetry, fiction, or creative nonfiction. Students meet regularly with their faculty mentor over one or two semesters, with students receiving an "IP" grade at the end of the first semester. Students present a selection from their completed manuscript to the

English faculty and other students. If the project extends past the two semester deadline, students will be required to register for IS 400. Pass/Fail. 2 credits

The following elective courses are offered periodically:

| EN 210 | Special Topics in Literature |
| :--- | :--- |
| EN 225 | Peace/Justice Themes in American Literature |
| EN 318 | Romantic Writers |
| EN 321 | American Novel |
| EN 322 | American Drama |
| EN 323 | American Poetry |
| EN 360 | Development of English Drama |

## HISTORY

## HS 110 Emergence of the Modern West

A survey of several centuries of Western history. An introduction to major developments, figures, tendencies, and terms.
3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 151 World Cultures, Their History and Development

Introduction to world cultures as a contemporary problem and possibility. Beginning with the assumption that the world is a social, economic, political, and cultural entity produced through contestation and cooperation of peoples around the globe-the course looks at major practices through which the world culture has been and continues to be made, including capitalism, colonialism, and war. Methodologies to historical problems. 3 credits

## HS $170 \quad$ History of the United States to 1865

A general survey emphasizing the political, economic, and cultural development of the United States from the colonial era to the end of the Civil War. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 171 History of the United States since 1865

Continuation of HS 170; both may be taken independently. General study of modern America from 1865 to the present. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 198 Introduction to United States Labor History

 An examination of the history of the American labor movement and working class culture in the United States from 1800 until the present. The course will focus on the leaders and rank and file of labor as well as the economic, social, cultural, and political context for the development of the workers' movement. 3 credits FULFILLS HISTORY LAI REQUIREMENT.HS 201 Introduction to Modern Asia
An introductory overview of modern Asia from the decline of the early modern empires to the impact of European and American
imperialism, cultural renaissance, nationalist movements, creation of independent nation states, postcolonial developments, and U.S.Asian relations. 3 credits

## HS 202 Modern China

A brief overview of China's history before 1949; the foundation of the People's Republic of China, Taiwan; the career of Mao Zedong; the Great Leap; Cultural Revolution, 1966-1976; Deng Ziaoping; and the present period. 3 credits

## HS 203 Modern Japan

An introduction to the development of an industrial society, parliamentary government, mass culture, and imperialism from the Meiji reforms of the late 19th century through World War II to the present. 3 credits

## HS 205 (WS 205) History of American Women

A study of the history of women in America from the colonial era to the present focusing on struggles for equal rights, family, sexuality, feminism, leadership, and the impact of race, class, and ethnicity. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## HS 207 History of the American City

An examination of the changes in the history of the American city from colonial origins to its industrial-urban expression in the early 1900s, to the postindustrial-global city of today. Changing definitions of public space, community, municipal politics and economics, (global and local), cultural diversity and immigration, city culture, urban architecture, suburbanization, and domestic life will provide the focus of our inquiry. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 210 Western Culture

A study of major dynamics of the North Atlantic world. Focus on significant ideas, figures, practices, texts, institutions, or issues. Methodologies to investigate historical problems. 3 credits FULFILLS HISTORY LAI REQUIREMENT

## HS 213 Europe Since World War II

A study of the reconstruction of European politics and society after 1945: emergence of Cold War in Europe; decolonization; economic cooperation and development; East-West relations; and the end of the Cold War. 3 credits

## HS 217 History of the British Isles

A study of metropolis and empire. Traces the development of Ireland, Scotland, Wales, and England and examines from postcolonial perspectives the history and culture of the multi-ethnic, multinational British Empire that stretched over five continents until its dissolution. 3 credits

## HS 218 Irish-American History

Why did some seven million people leave Ireland for North America from the 17th through the 20th centuries? What did this migration mean for the country they left and more especially, the country that received them? How did the United States transform the immigrant

Irish and their children, and how did the Irish transform the United States? This course will seek to understand the dynamic, ongoing impact of this mass migration on the economic, political, and cultural development of the United States, where 45 million people today claim some ancestral connection to Ireland. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 226 Caribbean History

Study of key themes and major events in the Caribbean from initial European contact to emergence of independent states. Crosscultural approach that recognizes shared history not only within the Caribbean, but also with Africa and the American South. 3 credits

## HS 230 African-American History

An examination of the Black experience in the U.S., including slavery, emancipation, reconstruction, segregation, the Great Migration, Civil Rights, and industrialization. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 233 American Constitutional History

An overview of the U.S. Constitution from its origins in the Revolutionary War, with an interest in the Articles of the Confederation and the Declaration of Independence. Standpoints of both the Federalists and the Anti-Federalists will be discussed. In addition to an examination of landmark cases in the legal heritage of the United States, the course will investigate the political, economic, and social conditions behind those cases, and the Constitution in general. The class will look at a wide range of topics, including origins of the Constitution, its development in the formative era of the republic, the War of 1812, the presidential elections of the 1830s and 1840 s, and continuing through the outbreak of the Civil War. A short section on contemporary issues will conclude the course. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

HS 246 History of Utopias: Utopia/Dystopia/Science Fiction An examination of classical and modern utopian visions and movements in the context of U.S., European, and non-Western history. Utopia can be defined as an imaginative construction of a whole society. Can utopia be theorized as a vision of the future, or a record of the past? Are all utopias politically progressive? The course makes use of historical texts, films, and literature. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

## HS 250 Multiculturalism in U.S. History

A study of the development of American society focusing on the role of African Americans, Native Americans, Hispanic Americans, and Asian Americans. Concepts of multicultural diversity, racism, and intergroup relations will be explored within a comparative historical framework. 3 credits FULFILLS HISTORY LAI REQUIREMENT.

HS 261I (MU 261I) Electronic Culture, Experimental Music A team-taught course structured around the proposition that music does not just reflect society, but foreshadows new social formations and economic and technological change in a prophetic and annunciatory way. Students will be expected to treat music as a historically determined and socially constructed practice. The course will address new musical ideas and the parallel developments in
electronic culture. It will be about music that exists because of the use of electronics rather than music that simply uses electronics. The musical and social space is one in which aural reality is recontextualized by new sounds, new rules for playing sounds, and new demands for listening. The class is profoundly interdisciplinary, fusing cultural history and music theory. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## HS 304 Popular Culture

An exploration of critical approaches to popular culture. The course examines popular music, film, literature, and television, as well as investigates subcultures and other forms of cultural mediation in U.S., European, and non-Western history. This course locates popular culture in its social, cultural, and intellectual context. 3 credits FULFILLS HISTORY LAI REQUIREMENT. FULFILLS LINKED REQUIREMENT WHEN OFFERED AS HS 304L.

## HS 322 (AR 322, WS 322) Representations of Women:

High Art/Popular Culture
A study and critique of concepts of gender and sexuality in representative cultural texts (film, painting, music, and television). Critical and source materials are drawn from art history, cultural studies, feminist theory, and history. 3 credits

## HS 325I (WS 325I) Girl Cultures

The course draws on the methods and materials of history, women's studies, and cultural critique to introduce students to the fields of girl studies and third wave feminist theory. Using a framework that emphasizes the intersections of gender, race, class, sexuality, and nationality in cultures, theories, and activism that girls and women create and navigate, students gain a deeper understanding of the formation of girl cultures from a theoretical and empirical perspective. Girlhood does not simply reflect society: it foreshadows new social and cultural practices, temporary as they may be, in a prophetic and annunciatory way. Students will be expected to treat girlhood as constituted through experience, a careful analysis of which should lead to the historicization of that process.
3 credits FULFILLS WOMEN'S STUDIES AND HISTORY LAI, GLOBAL, AND INTERDISCIPLINARY REQUIREMENTS.

## HS 351 (WS 351) Women and American Labor History

Contributions of women to the American labor movement; past and current issues in female participation in workers' movements in the United States. 3 credits FULFILLS HISTORY OR WOMEN'S STUDIES LAI REQUIREMENT.

## HS 353/354 Special Topics in American History HS 355/356 Special Topics in American History Topics vary. 1 to 4 credits

HS 3801 (WS 380I) Special Topics in Women's History Topics vary. 1 to 4 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

HS 392/393 Special Topics in European History HS 394/395 Special Topics in European History Topics vary. 1 to 4 credits

HS 400 Independent Study
Specialized study in which the student engages independently, with the guidance of a faculty member, in researching a historical topic of interest. Open to all students with permission. Credits vary

## HS 405 Internship

Career and professional opportunities in history including mass media, politics, historical preservation, curating, and teaching. PERMISSION REQUIRED PRIOR TO REGISTRATION. Credits vary

HS 410 Special Topics in Non-Western History: Japanese Animation and Comics
A study and critique of anime (animation) and manga (comic books) in Japan. Anime and manga constitute the perfect medium to visually and narratively capture what is perhaps the overriding issue in present-day Japan: the shifting nature of identity in a rapidly changing society. The course will investigate the ways in which anime and manga present complex issues in an in-depth and sophisticated manner, uncovering identity conflicts, fears over rapid technological advancement and environmental pollution, and other key themes present in contemporary Japanese imaginary. Aesthetics, production, and reception of anime and manga will be explored against the backdrop of Japan's political, social, and cultural history. Students can choose between a creative project such as a digital video pilot for an anime or a manga storyboard, and a major research paper about the historical contexts of these genres. 3 credits

HS 411/412 Special Topics in Non-Western History HS 413/414 Special Topics in Non-Western History Topics vary. 1 to 4 credits

## HS 456 Senior Thesis

During this capstone experience, students pursue challenging independent scholarship that demonstrates depth and breadth of historical knowledge. The student will present a section of their completed thesis to the History faculty and other students. 3 credits

## MATHEMATICS

## MAT $100 \quad$ Basic Algebra Fundamentals

Online review of the core skills and concepts of basic algebra using adaptive computer software. Students will have individualized opportunities to develop fluency with real number operations and computation. Students will use proportional reasoning and solve linear equations in context using multiple representations to deepen understanding. Students will flexibly use the mathematics process skills of problem solving, communication, and making connections to prior learning throughout. 1 credit NOTE: PERMISSION TO ENROLL IN THIS COURSE IS CONTINGENT ON THE EVALUATIONS OF PLACEMENT RESULTS.

## MAT 106 Introduction to Statistics

An introduction to the concepts of frequency distributions, averages, variability, normal curves, correlation, hypothesis testing, and other topics with applications to business and social sciences. 3 credits NOTE: THIS COURSE DOES NOT SATISFY ANY UNIVERSITY CORE REQUIREMENTS.

## MAT $110 \quad$ College Algebra

A review and summary of properties of algebraic functions. An exploration of the solution process of equations and inequalities. Study of the algebra, behavior, and graphs of functions in a liberal arts context. This course is not a preparation for the study of calculus. See MAT 150. 3 credits FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITE: DEMONSTRATED READINESS FOR LAI MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

## MAT $112 \quad$ Mathematics in Society

This course explores the connections between contemporary mathematics and modern society. Students will study the mathematical principles required to use mathematics to better understand the world around them. The course will emphasize strong conceptual understanding and appreciation of mathematics for application to daily life experiences. 3 credits
FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITES: CC 102 AND DEMONSTRATED READINESS FOR LAI MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

## MAT $115 \quad$ Basic Applied Statistics

A study of the ideas and tools of practical statistics using data in context. Methods and strategies for exploring data graphically and quantitatively. Statistical reasoning and the tools of inference that go beyond the data to draw conclusions about a wider population with attention paid to the uncertainty of these conclusions. Students will conduct standard one and two sample statistical analyses. 3 credits FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITE: CC 102 AND DEMONSTRATED READINESS FOR LAI MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

## MAT 120 Introduction to Mathematical Modeling

A study of the use of mathematics to examine a series of genuine elementary applications. Students will consider a contextual situation, develop a mathematical model that describes the situation, use systematic exploration to identify solutions, and examine the behavior of the solutions in the context of the situation at hand.
Models considered include: arithmetic, quadratic, geometric, and logistic, as well as combinations of these. 3 credits
FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITES: CC 102 AND DEMONSTRATED READINESS FOR LAI MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

## MAT 130 Transcendental Functions

A study of algebraic, exponential, logarithmic, and trigonometric functions in preparation for the study of calculus. Topics include: properties of algebraic expressions, solution of algebraic equations and inequalities, graphs and properties of algebraic and transcendental functions, solution of transcendental equations.
3 credits

## MAT $150 \quad$ Precalculus

A study of algebraic, exponential, logarithmic, and trigonometric functions in preparation for the study of calculus. Topics include: properties of algebraic expressions, solution of algebraic equations and inequalities, graphs and properties of algebraic and transcendental functions, and solution of transcendental equations. 3 credits FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITE: DEMONSTRATED READINESS FOR LAI MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

## MAT 151I (CHM 151I, BIO 151I) Computer Applications for Science and Mathematics

An introduction to the practical application of computer hardware and software to problems in the sciences and mathematics. Topics include basics like using a graphical user interface and common office applications. More advanced topics include computer interfacing to instruments, mathematical modeling, curve fitting, molecular modeling, and others. No computer background is assumed. Three hours lecture/workshop/ demonstration weekly. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT. PREREQUISITES: CHM 111, BIO 110 OR PCS 221, MAT 160, CC 100, CC 101, AND CC 102.

## MAT $160 \quad$ Calculus I

An introduction to Calculus and its applications. Topic include: limits, continuity, the rules of differentiation, implicit differentiation, first and second derivative tests, curve sketching, anti-derivatives, the relationship between differential and integral calculus, definite integrals and the area under a curve. 4 credits FULFILLS MATHEMATICS LAI REQUIREMENT. PREREQUISITE: DEMONSTRATED READINESS FOR CALCULUS BY PLACEMENT OR COMPLETION OF MAT 150.

## MAT $260 \quad$ Calculus II

A continuation of Single-Variable Calculus and its applications. Topics include definite integrals and the area under a curve, volumes and other applications of the integral, integration techniques (such as trigonometric substitution, integration by parts, and partial fractions), and sequences and series. 4 credits PREREQUISITE: MAT 160.

## MAT $300 \quad$ Modern Algebra

A formal introduction to the construction of proof via the classical theory of finite groups. Properties of group morphisms are used to prove the Cayley, Cauchy, and Sylow Theorems. The concept of a ring is introduced as an abstraction of the integers. The rational numbers are constructed as a quotient field of the integers. 3 credits PREREQUISITE: MAT 160.

## MAT $301 \quad$ Probability and Statistics

An introduction to elementary probability theory, combinatorial analysis, random variable distribution functions, and discussion of the Law of Large Numbers and Central Limit Theorem. 3 credits PREREQUISITE: MAT 360.

MAT 302 Linear Algebra
An examination of properties of vectors and matrices. Solution of systems of linear equations, Gaussian elimination, and iterative techniques. Algorithms for determining inverses, determinants, eigenvalues, and eigenvectors. 3 credits PREREQUISITE: MAT 160.

## MAT $303 \quad$ Linear Programming

An introduction to linear programming techniques that solve real applied problems. The focus is on using linear programming techniques, applications, models, algorithms, and a computer software package to solve optimization, product-mix, transportation, scheduling, assignment, and hiring-firing problems. Methods learned include the revised simplex method, duality, sensitivity analysis, integer programming, and sparse matrix techniques. 3 credits PREREQUISITE: MAT 160.

## MAT $308 \quad$ Numerical Methods

An introduction to numerical techniques implemented on microcomputers to find roots of equations, solutions to linear and nonlinear systems, and definite integrals. 3 credits
PREREQUISITES: MAT 302 AND CSC 110.

## MAT $321 \quad$ Applied Discrete Mathematics

A selection of topics from set theory, combinatorics, graph theory, algebra, Boolean algebra, formal logic, and computer science that are both useful and basic to students in applied mathematics, computer science, and engineering. Formal mathematical proofs via induction, combinatorial arguments, truth tables and propositions, Russell's Paradox, principle of inclusion and exclusion, the pigeonhole principle and analysis of algorithms, countably and uncountably infinite sets, generating functions, recurrence relations, and lattices. 3 credits PREREQUISITE: MAT 160.

## MAT $325 \quad$ Geometry

An examination of independence and completeness of axiomatic systems. Euclidean and non-Euclidean geometries, including finite and projective geometries. Construction of proofs in Euclidean geometry in two and three dimensions. 3 credits PREREQUISITE: MAT 160.

## MAT 331 Differential Equations

An introduction to solvability techniques for separable, linear, and exact first order equations; methods of undetermined coefficients and variation of parameters; Laplace transform methods for systems with constant coefficients and qualitative arguments and iterative methods. 3 credits PREREQUISITE: MAT 260.

## MAT $340 \quad$ Number Theory

An account of classical number theory as well as some of the historical background in which number theory evolved. Especially intended for prospective secondary teachers to provide familiarity with the number theory and basic concepts of mathematical proofs and reasoning: the division algorithm, the Euclidean algorithm, primes and their distribution, the theory of congruence, Mobius inversion, perfect numbers, the Fermat Conjecture, and Fibonacci numbers. 3 credits PREREQUISITE: MAT 160.

## MAT $360 \quad$ Calculus III

An introduction to Multi-Variable Calculus and its applications. Topics include: Polar coordinates, vector analysis, parametric curves, differential calculus of several variables, multiple integration, Green's theorem and Stokes' theorem. 4 credits
PREREQUISITE: MAT 260.

## MAT 398/399 Junior Seminar

An opportunity for junior mathematics majors to research current trends and topics of interest in an area of mathematics or engineering and present a seminar and paper devoted to this topic. Students work in conjunction with a faculty mentor. The course covers topics in scientific research and presentation. One hour of seminar per week. 1 credit each.

## MAT $400 \quad$ Independent Study

An intensive, independent study of topics such as graph theory or the study of mathematics using computer algebra systems. 1-6 credits PERMISSION FROM THE DEPARTMENT CHAIR REQUIRED.
PREREQUISITE: MAT 302.

## MAT 498/499 Senior Experience

An independent, professional experience for senior mathematics majors within their field, designed in consultation with a faculty mentor. May involve research, an internship, or an independent project. One hour of seminar per week, plus additional time as needed. 2 credits each.

MUSIC

## MU 102 The Musical Experience

Introduction to the elements of melody, rhythm, harmony, texture, orchestration, and form. Acquaints the student with the various styles of music from baroque to jazz. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## MU 217 Music and Culture

Introduction to the music of non-western cultures, including Bali, India, China, and Thailand. Emphasizes music's ability to mirror the culture that produces it. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## MU 218 Understanding Jazz

Introduction to the complex and fascinating history and development of jazz, America's major contribution to world music. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## MU 223 Crises in Creation

Engages the student in "classical" music by examining case studies of composers working or being in conflict with some outside force.

Studying this issue can involve historical, sociological, religious, philosophical, and political issues and ideas as well as musical ones. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

MU 261I (HS 261I) Electronic Culture, Experimental Music A team-taught course structured around the proposition that music does not just reflect society, but foreshadows new social formations and economic and technological change in a prophetic and annunciatory way. Students will be expected to treat music as a historically determined and socially constructed practice. The course will address new musical ideas and the parallel developments in electronic culture. It will be about music that exists because of the use of electronics rather than music that simply uses electronics. The musical and social space is one in which aural reality is recontextualized by new sounds, new rules for playing sounds, and new demands for listening. The class is profoundly interdisciplinary, fusing cultural history and music theory. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## MU 400 Independent Study

Allows students to pursue vocal or instrumental lessons on a tutorial basis. 1-2 credits

## MU 481 Carlow Choir

Students rehearse and perform with the Carlow Choir. May be repeated four times. 1 credit FULFILLS FINE ARTS LAI REQUIREMENT (MUST BE TAKEN THREE TIMES FOR LAI CREDIT).

## PHYSICS

## PCS 201 General Physics I Lecture PCS 202 General Physics II Lecture

An introduction to physics. First semester topics include classical mechanics, heat, and thermodynamics. Second semester topics include sound, electrostatics, magnetism, electrodynamics, and light. Three hours of lecture and one hour of recitation weekly.
3 credits each FULFILLS NATURAL SCIENCES LAI REQUIRMENT WHEN TAKEN IN CONJUNCTION WITH THE ACCOMPANYING LABORATORY COURSE. PREREQUISITE: MAT 150. PCS 203 IS A COREQUISITE FOR PCS 201 AND PCS 204 IS A COREQUISITE FOR PCS 202. PCS 201 IS A PREREQUISITE FOR PCS 202.

PCS 203 General Physics I Laboratory
PCS 204 General Physics II Laboratory
A workshop where students will get firsthand knowledge of physical principles and experimental methods through the use of apparatus designed to demonstrate the meaning and applications of these principles. The topics that are explored in physics laboratory are complimentary to the material covered in the lectures. First semester topics include classical mechanics, heat, and thermodynamics,
while second semester topics include wave motion, sound, electrodynamics, light, and quantum theory. 1 credit each FULFILLS NATURAL SCIENCES LAI REQUIREMENT WHEN TAKEN IN CONJUNCTION WITH THE ACCOMPANYING LECTURE COURSES. PREREQUISITE: MAT 150. PCS 201 IS A COREQUISITE FOR PCS 203 AND PCS 202 IS A COREQUISITE FOR PCS 204. PSC 203 IS A PREREQUISITE FOR PCS 204.

PCS 221 Physics I with Calculus Lecture
PCS 222 Physics II with Calculus Lecture
An introduction to physics using calculus. First semester topics include classical mechanics, heat, and thermodynamics. Second semester topics include wave motion, sound, electrodynamics, light, and quantum theory. Three-hour lecture and one-hour recitation weekly. 3 credits FULFILLS NATURAL SCIENCES LAI REQUIREMENT WHEN TAKEN IN CONJUNCTION WITH THE ACCOMPANYING LABORATORY COURSES. PRE- OR COREQUISITE: MAT 152 OR MAT 160. PCS 223 IS A COREQUISITE FOR PCS 221 AND PCS 224 IS A COREQUISITE FOR PCS 222. PCS 221 IS A PREREQUISITE FOR PCS 222.

PCS 223 Physics I with Calculus Laboratory
PCS 224 Physics II with Calculus Laboratory
A workshop where students will get firsthand knowledge of physical principles and experimental methods through the use of apparatus designed to demonstrate the meaning and applications of these principles. The topics that are explored in physics laboratory are complimentary to the material covered in lecture, and the experiments are illustrative of the concepts discussed in the lectures. First semester topics include classical mechanics, heat, and thermodynamics, while second semester topics include wave motion, sound, electrodynamics, light, and quantum theory. 1 credit each FULFILLS NATURAL SCIENCES LAI REQUIREMENT WHEN TAKEN IN CONJUNCTION WITH THE ACCOMPANYING LECTURE COURSES. PREOR COREQUISITE: MAT 152 OR MAT 160. PCS 221 IS A COREQUISITE FOR PCS 223 AND PCS 222 IS A COREQUISITE FOR PCS 224. PCS 223 IS A PREREQUISITE FOR PCS 224.

## PHILOSOPHY

## PH 100 Introduction to Philosophy

Introduction to the history and problems of philosophy. Philosophers from Plato to contemporary thinkers such as Descartes, Sartre, Marx, Kierkegaard, Augustine Aquinas, and others will be covered. The course is designed to grant a general overview of the development of the philosophic tradition of the West. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 102 Political Philosophy

Overview of key figures in political philosophy such as Plato, Aristotle, Locke, Hobbes, Marx, and Machiavelli. The goal will be
to relate the theories of these crucial thinkers to contemporary political issues of the day and see how their thought has shaped the understanding of political concerns. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 103 Philosophy of Human Existence

Introduction to fundamental ideas in history of philosophy leading to existentialism. Such thinkers as Nietzsche, Heidegger, Sartre, Kierkegaard, and others will be discussed and studied in order to grasp a sense of how their thought has influenced the philosophy of the present era. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 105 Introduction to Moral Reasoning

Investigation of the history of ethics and its pertinence to contemporary morality. The course will focus on the traditional ethical theories of such thinkers as Plato, Aristotle, Aquinas, Augustine, Kant, Hume, Mill, Sartre, Marx, and others. It will also examine contemporary ethical issues as they relate to the history of ethical philosophy. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 107 Philosophy of Education

The course is designed to investigate the evolution of major theories throughout the history of Western philosophy. As a consequence, this course is geared toward understanding the relationship between education and political philosophy. 3 credits FULFILLS PHILOSOPHY LAI; MAY FULFILL LINKED REQUIREMENT WITH ED 258L WHEN OFFERED AS PH 107L.

## PH 204 Introduction to Logic

Introduction to practical analytic skills necessary for critical thinking and coherent argumentation. The course is an argumentative speaking and writing class with a quantitative logical component including Propositional and Categorical Logic. Students will write 10 two-three page papers. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 205 Problems in Philosophy

(Special Topics) Usually offered at least every other semester. Such topics as philosophy and rock and roll and philosophy and poetry are examined in an attempt to creatively expand the philosophic agenda. 3 credits

## PH 206 (AR 206) Aesthetics

Investigation of the history of aesthetics and its pertinence to art. The role of art as a vehicle of philosophic expression will be examined along with the aesthetic theories of such thinkers as Plato, Aristotle, Kant, Nietzsche, Schopenhauer, and Marx. Film and music will also be used in the class, as well as an examination of poetry and its philosophic and aesthetic significance. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 208 Philosophy and the Holocaust

Explores aspects of the history of the European Holocaust during World War II. Will examine ideas of Nietzsche, Schopenhauer,

Darwin, Frankl, St. Augustine, Leibniz and Robert J. Lifton. Theological questions will also be discussed. The course will include reading and a generous portion of film in an attempt to understand and think through this horrible and tragic event. There will be no exams in the course, but rather the writing of papers on various topics that shall be studied. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 210 Biomedical Ethics

Study of the perplexing ethical problems of life science, biomedical research, and health care policy and how these topics relate to central philosophic issues within the field of ethics. The course is very interactive using film, guest speakers, lectures, and classroom discussions on central issues of biomedical ethics of our time. These issues will be related to traditional philosophic positions and problems. 3 credits FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 2801 (TR 2801) Philosophy and Theater

This interdisciplinary course compares two periods in the history of Western philosophy with two periods in the history of Western theater. Students will study major works in both philosophy and theater. 3 credits FULFILLS PHILOSOPHY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## PH 313I (WS 313I, POL 313I) Women in Politics: Running for Office

An exploration of women's politics and political interest using feminist theories and gender-specific positions that lead to an understanding of what motivates individuals to run for office. Genderspecific concerns and obstacles confronted by women interested in political participation and leadership will be covered. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE AND WOMEN'S STUDIES LAI AND INTERDISCIPLINARY REQUIREMENTS.

## PH 315I (TR 315I) Theater in Political Philosophy

Students will study the interdisciplinary relationship between theatrical productions and politics with particular emphasis on the uses of theatrical techniques to promote political philosophies in contemporary American politics. 3 credits
FULFILLS PHILOSOPHY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## PH 323 Philosophy and Film

Examines major traditional philosophic issues and questions from the standpoint of contemporary cinema. Many films will be used in the class along with readings concerning the history of philosophy. The class is designed to be interactive with an emphasis on viewing film as a way of doing philosophy. 3 credits
FULFILLS PHILOSOPHY LAI REQUIREMENT.

## PH 325I (TR 325I) Philosophy, Humor, and Comedy

Interdisciplinary class designed for philosophy or theater majors and minors. The class is an overview of Western comedy and humor from the perspective of the history of Western philosophy. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

## PH 3281 (BIO 328I) Evolution

Interdisciplinary class designed to provide the student with a sound foundation in the biology, history, and philosophy of evolutionary theory. There are no prerequisites and the course may be taken by any upper level student. It meets a major course requirement for biology or philosophy. 3 credits FULFILLS PHILOSOPHY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## PH 355 (WS 355) Feminist Philosophy

A study of philosophies of women and women's philosophies such as those of Woolf, deBeauvoir, Chodorow, Gilligan, and post-structural feminists. The course is designed to examine the development and impact of feminist thought and theory in contemporary society. 3 credits

## PH 400 Independent Study

A course designed for the student who would like to study an individual philosopher in depth or a particular problem in philosophy or system of thought such as Sartre, Existentialism, Rationalism, and other topics. Credits vary

## PH 401 Applied Biomedical Ethics

Advanced study of ethical issues in the health sciences. Focuses on case studies and contemporary articles. 3 credits PREREQUISITE: PH 210.

## PH 402 Contemporary Philosophy

Introduction to the major philosophers and philosophical movements of the contemporary era. May include analytic philosophy, psychoanalysis, phenomenology, structuralism, semiotics, and deconstruction. 3 credits

## PH 403 Single Philosopher

An in-depth study of a single philosopher such as Sartre, Plato, Descartes, Hegel, Freud, or Heidegger which will allow the student, under the supervision and guidance of a faculty member, to explore in detail the thought and writings of a philosopher of their choice and interest. An overview of the philosopher will be undertaken as well as perhaps particular issues and problems that the philosopher addresses. Credits vary

## PH 499 Senior Thesis

Part of the requirement for all philosophy majors. To be done in the senior year of study. A topic or philosopher is picked by the student in the history of philosophy to be studied and written upon under the guidance of one of the faculty. Usually to be between 15 and 20 pages in length. Credits vary

## PERFUSION TECHNOLOGY

NOTE: CARLOW UNIVERSITY DOES NOT GUARANTEE ADMISSION TO THE PERFUSION TECHNOLOGY PROGRAM. ADMISSION IS ON A COMPETITIVE BASIS.

## PRT 350 Introduction to Clinical Perfusion

This three-week summer course is offered each May and consists of both theory and practice to orient the student to the perfusionist's environment prior to beginning the 16-month clinical program in June. 3 credits PREREQUISITES: BIO 205 AND BIO 206.

## PRT 471 Perfusion Systems (Clinical 1)

Introduction to the essential diagnostic and monitoring devices utilized by perfusionists. Designed to enable the student to calibrate, operate, and maintain equipment. 2 credits

## PRT 475 Hematology

A review of general hematology and immunological principles with emphasis on coagulation and disorders of hemostasis, the preservation and clinical use of blood components, and the pathological effect of cardiopulmonary bypass on the biochemistry of the blood. 3 credits

## PRT 478 Renal Physiology

A review of renal physiology with particular emphasis on the approach to cardiovascular patients with renal disease and the effects of cardiopulmonary bypass on renal function. 2 credits

## PRT 479 Cardiovascular Anatomy and Physiology

A study of functional anatomy and physiology of the cardiovascular system with emphasis on the hemodynamics of cardiopulmonary bypass. 3 credits

## PRT 480 Orientation to Surgical Environment

Introduction to general considerations in the care of the surgical patients with emphasis on specific responsibilities of perfusion personnel. Designed to expose the student to surgical suite organization, surgical sepsis, sterilization, electrical safety, and the principles and practice of surgical asepsis. 1 credit

## PRT 481 Pulmonary Physiology

A review of respiratory physiology with emphasis on gas exchange and transport, acid-base balance, the effects of cardiopulmonary bypass on pulmonary function, and the clinical treatment of respiratory failure. 2 credits

## PRT 483 Electrophysiology

A study of the fundamentals of electrocardiography and the electrocardiographic basis of arrhythmias. 2 credits

## PRT 485 Perfusion Procedures (Clinical II)

A course designed to demonstrate the preparation of the cardiopulmonary bypass and auxiliary equipment used during surgery. The principles and practices of clinical perfusion management are introduced along with an emphasis on the types of systems and procedural applications associated with bypass surgery. 3 credits

## PRT 487 Medical Physics

An introduction to the properties of liquids and gases and the medical application of pressures in fluids and the cardiovascular system.

## 2 credits

## PRT 489 Pathology (Acquired)

An introduction to the disorders of the cardiovascular system and diseases of the heart and blood vessels. 2 credits

## PRT 493 Pathology (Congenital)

An introduction to the pathology, abnormal physiology, and surgical treatment of congenital heart disease. 2 credits

## PRT 495 Perfusion Conduct (Clinical III)

Practicum in the conduct of cardiopulmonary perfusion. 6 credits

## PRT 497 Pharmacology

Comprehensive study of cardiovascular pharmacology. 3 credits

## SECONDARY EDUCATION

## SE 311 Reading and Writing Across Disciplines

This course introduces secondary education students to a variety of methods for teaching reading and writing in the content areas. Students are immersed in critical thinking concepts and strategies that enable them to identify and analyze the structure of their discipline. They incorporate knowledge of their particular discipline and what research has documented about reading and literary theories in order to understand the role of reading and writing within that discipline. The focus is content literacy. Central to this course is the idea of using writing as a means of coming to know. 3 credits

## SE 350 Secondary Curriculum and Methods

This course positions secondary students to understand the relationship between curriculum theory and practice. With focus on creating learning environments that foster critical and imaginative thinking and problem solving, students design and present lesson plans and develop units that enable the adolescent (grades seven-12) to explore concepts and pursue a particular inquiry. Students will incorporate various forms of questioning and assessment, understand issues related to classroom management, and develop strategies to ensure that students with special education concerns are included. This course enables students to understand the importance of reflective teaching and prepares them for the student teaching experience. 4 credits

SE 400 Independent Study
Study of topic(s) of particular interest to the student. Credits vary.

## SE 402 Field Experience in Secondary Education

Experiences arranged to meet particular needs or goals of students preparing to teach at the secondary level. 1 credit

## SE 409 Student Teaching in Secondary Education and Seminar

Sixteen weeks full-time teaching experience in a junior or senior high school setting under the direct supervision of a cooperating teacher and University supervisor. After a brief observation period, the student teacher is expected to demonstrate competency in planning, facilitating, and assessing learning activities. The student teacher gradually assumes full classroom responsibilities. Students may teach in more than one content area. Verification of competence is determined jointly by the cooperating teacher and University supervisor. Student teachers are also required to attend University seminar meetings throughout the student teaching experience. 1 2 credits PREREQUISITES: COMPLETION OF ALL MAJOR COURSE REQUIREMENTS, PROFESSIONAL SEQUENCE REQUIREMENTS, AND MINIMUM GPA OF 3.0. NOTE: NO OTHER COURSE MAY BE TAKEN WHILE A STUDENT IS REGISTERED FOR SE 409 WITHOUT SPECIAL PERMISSION OF THE CHAIR OF SECONDARY EDUCATION.

## SPECIAL EDUCATION

## SPED 230 Foundations of Special Education

This course serves as an introduction to the field of special education. Included among the topics addressed are the history of special education; its legal and legislative foundation; and the purpose of the Individual Education Plan (IEP), its development and requirements for implementation. A focus on the nature and causes of disabilities will give students an overview of the needs of exceptional children. The entire range of disabilities requiring special education intervention will be addressed. This includes children with hearing losses; visual problems; speech disorders; attention deficit; traumatic brain injury; autism; emotional, behavioral, and social disorders; mental retardation; learning disabilities; physical disabilities; and giftedness. Current trends will focus on minority representation, inclusion, and standards. Models for collaboration including the multidisciplinary team and trans-disciplinary approaches for effective communication with family and among related service providers will be addressed. Lastly, definitions, prevalence, causes, assessment, characteristics, and educational considerations for several exceptionalities will be reviewed. This course is designed to nurture in students a critical stance towards research, theory, and practice. The goal is that students become educated consumers of the special education knowledge base. For this purpose, the prevailing as well as alternative perspectives on topics will be reviewed. In addition, cultural diversity and social justice will be emphasized throughout the course. 3 credits

## SPED 332 Instructional Support in Reading, Writing, and Mathematics

Designed for the general education teacher, this course focuses on prevention and early intervention for struggling learners in general and inclusive classrooms. The instructional cycle of assessment, planning, instruction, and progress monitoring combines for a complete view for developing an effective learning environment for all learners. Specific instructional and learning strategies to improve literacy and mathematics are introduced, practiced, and applied in a 30 -hour field placement in a classroom with students exhibiting learning difficulties. Emphasis on the reading-writing connection is included. Examination of current practices in the implementation of responsiveness to intervention (RTI) models and understanding of universal design for learning (UDL) prepares teachers to meet the learning needs of all students, including those identified as having special needs and those students who are at risk. Models and methods for collaboration and communication with other teachers and parents are examined. 3 credits PREREQUISITE: SPED 234. CO/ PREREQUISITE: ED 312 OR EDML 320.

## SPED 334 Instructional Support for Content Areas (PreK-8)

This course focuses on expanding the understanding of development and cognition in and academic and functional performance of students with disabilities, how these are similar to and different from all developing students, and how this understanding informs the teaching of students with disabilities in the primary and middle school environments. Another area of exploration is the way in which these differences need to be addressed within a standards-aligned system that demands high expectations of students with disabilities so that they have true access to the general education curriculum. This course will enhance the development of a range of instructional supports and use of validated practices in prospective teachers for inclusive settings, especially in content area subjects, but also the supporting skills of reading, written language, and math, that are necessary for success in today's classrooms. 3 credits PREREQUISITE: SPED 230.

## SPED 336 Instructional Support for Content Areas (7-12)

 This course focuses on expanding understanding of development and cognition in and academic and functional performance of students with disabilities, how these are similar to and different from all developing students, and how this understanding informs the teaching of students with disabilities in the secondary school environments. Another area of exploration is the way in which these differences need to be addressed within a standards-aligned system that requires high expectations of students with disabilities so that they have true access to the general education curriculum. This course will enhance the development of a range of instructional supports and use of validated practices in prospective teachers for inclusive settings, especially in content area subjects, but also the supporting skills of reading, written language, and math, that are necessary for success in today's classrooms. 3 credits PREREQUISITE: SPED 230.
## SPED 360 The Arts for Special Populations

This course is designed to provide a fundamental background in how various arts disciplines can be used to instruct students with disabilities at the elementary through secondary level. Emphasis will be placed on specific teaching and learning strategies that integrate the arts in order to assist students in reaching their learning goals and objectives. Participants will explore the selection, adaptation, and development of instructional materials across curriculum areas and student's needs. 3 credits.

## SPED $450 \quad$ Early Intervention (PreK-8)

This course focuses on the professional knowledge and skills needed to provide young children (birth through age 8) with effective interventions across a variety of settings. Special attention is given to building partnerships with related service providers and families in culturally/linguistically diverse settings. Students evaluate Individualized Family Service Plans (IFSP) and Individual Education Plans (IEP) and design appropriate instructional strategies in a 30-hour field placement. Special attention is given to language development, facilitating play as a learning activity, and instructional strategies that promote inclusion in typical settings. Implications of medical advances and routines for daily care including feeding, dressing, toileting, and other activities of daily living are examined. 3 credits PREREQUISITE: SPED 230.

## SPED 451 Assessment in Special Education

This course is designed to familiarize teacher candidates with the many ways in which assessment accompanies instruction in the classrooms of today. A strong emphasis is placed on linking assessment with planning for instruction and developing Individual Education Plans for students identified as eligible for special education services. Students will learn to identify, choose, and administer appropriate assessment measures, both formal and informal, in the classroom and for identification of disabilities in students. Emphasis is placed on developing the understanding necessary to interpret assessment data and to use that information to plan instruction for students in a standards-aligned system. Among the specific topics covered are progress monitoring and its relationship to response-to-intervention in the general education classroom, functional behavioral assessment and its relationship to behavioral intervention plans, and issues of assessment with children from culturally and linguistically diverse communities. 3 credits PREREQUISITES: SPED 230, SPED 332, AND SPED 334 OR SPED 336.

## SPED 452 Transitions to Adulthood

This course is designed to prepare special education teacher candidates to assist students with disabilities and their families as they navigate transition points such as moving from preschool to school and from secondary settings to work or post-secondary education. Effective instructional practices that support transition at each level will be a central part of this course, as will the range of delivery methods for effective transition. Transition remains a challenge for individuals with disabilities, despite the focus on providing students with disabilities access to the general education. Special educators need to understand the processes and procedures
of transition from secondary school to post-secondary settings. They must develop facility with the tools that support transition regardless of the setting in which education takes place. A key focus will be on the vocational choices, training, and education available to young adults with disabilities and the major societal challenges that face young adults as they make the transition into adulthood. Understanding transition assessment and incorporating transition planning into IEP development will also be a focal point of this course. The differing legal requirements between the Individuals with Disabilities Education Act and the Americans with Disabilities Act will be a central part of this course. The field component of this course involves visits to sites that prepare individuals with disabilities to enter the post-school environment. 3 credits
PREREQUISITES: SPED 230, SPED 332, SPED 336, AND SPED 451.

## SPED 460 Communication and Technologies in Special Education

This course focuses on language development from birth to adult in individuals with disabilities, the range of communication needs often displayed, and alternative technologies to support those needs. An area of particular emphasis is the teacher's role in supporting language and communication development in the classroom and as a contributing member of the transdisciplinary team. Collaborative models and communication strategies for developing effective working relationships with team members will be examined. In addition, students will study the role of augmentative and alternative communication (AAC) and assistive technologies; their selection, function, and application for promoting independence for learning and living. Opportunities for hands-on exploration of a variety of devices, both low and high tech, including switches, augmentative communication devices, alternative keyboards, specialized computer software, adaptive equipment, and other items available in Carlow's Assistive Technology Library will be utilized. 3 credits PREREQUISITES: SPED 230, SPED 332, AND SPED 334 OR SPED 336.

## SPED 470 Meeting the Learning Needs of Students with Mild/Moderate Disabilities

This course is designed to support special education teacher candidate mastery of the range of instructional approaches available for teaching students with mild to moderate disabilities in today's classrooms, including specialized strategies for the teaching of reading, written language, mathematics, and social skills. The course addresses the special educator's role in the continuum of classroom settings and the teaching methods utilized with this population. Teacher candidates explore the conceptual frameworks required by teachers as they identify student ability levels and learning styles and plan for appropriate instruction for all learners. Adaptation of existing educational materials and curriculum are often required to implement a successful program. Universal design for learning and instruction is an integral part of this course. Teacher candidates will learn to utilize current research and evidence-based practices that are used in the education of students with mild/moderate disabilities. They will learn strategies from multiple instructional approaches. They will learn to use principles of instructional design that will permit them to address Pennsylvania state standards and
assessment anchor content standards in the classrooms in which they teach that will meet students' IEP goals and objectives.
3 credits PREREQUISITES: SPED 230, SPED 332, SPED 334 OR SPED 336, SPED 451.

## SPED 472 Positive Behavior Supports (PreK-8)

This course is intended to provide teachers with an understanding of the etiology and conditions of student behavior and equip them with strategies so that they may manage classroom behavior effectively. The techniques of Applied Behavioral Analysis will be introduced. Identification of students at risk, including children with emotional, social, and behavioral disorders and the development of effective intervention strategies will be covered. A variety of methods for data collection and the analysis of the information generated by these methods are included in the course. Functional Behavioral Assessments (FBA) and the development of the Behavior Improvement Plan (BIP) will be explored so that a beginning teacher is prepared with numerous options to use when dealing with problems behavior in a positive and proactive manner. 3 credits PREREQUISITES: SPED 230, SPED 332, AND SPED 334 OR SPED 336.

## SPED 474 Positive Behavior Supports (7-12)

This course is intended to provide teachers with an understanding of the etiology and conditions of student behavior and equip them with strategies so that they may manage classroom behavior effectively. The techniques of Applied Behavioral Analysis will be introduced. Identification of students at risk, including children with emotional, social, and behavioral disorders and the development of effective intervention strategies will be covered. A variety of methods for data collection and the analysis of the information generated by these methods are included in the course. Functional Behavioral Assessments (FBA) and the development of the Behavior Improvement Plan (BIP) will be explored so that a beginning teacher is prepared with numerous options to use when dealing with problem behaviors in a positive and proactive manner. 3 credits PREREQUISITES: SPED 230, SPED 332, AND SPED 336.

## SPED 476 Teaching Methods for Students with Severe/Profound Disabilities

This course is designed to prepare students to teach children and young adults with severe/profound disabilities. Learning objectives will cover student assessment and program design, along with the implementation of an appropriate educational program. In addition, communication methods, self-help skills, activities of daily living, as well as socialization will be addressed with this population. This course will include a 30-hour field placement in an authentic learning environment-a nationally accredited Approved
Private School that demonstrates "best practices" with this population. The field placement will reflect the special education program, either a PreK-8 or 7-12 age group. This will provide the student with excellent teaching models and the opportunity to learn from a variety of experts and practitioners in the field including teachers, paraprofessionals, administrators, speech and language therapists, occupational therapists, physical therapists, and rehabilitation technologists. The student, through hands-on learning, will experience the challenges and rewards of teaching children and
young adults who are challenged by severe/profound disabilities.
3 credits PREREQUISITES: SPED 230, SPED 332, AND SPED 334 OR
SPED 336.

## SPED 478 Autism Spectrum Disorders

This course is designed to prepare teachers to work in a variety of environments serving children and young adults with Autism Spectrum Disorder (ASD) including the general education classroom, inclusive settings, and specialized settings. Evidence-based practice, philosophical approaches, and specific intervention techniques are examined. These practices are considered within the continuum of services and collaborative models utilized in designing effective instructional environments for students with ASD. Attention is given to current and evolving research related to etiology, brain function, and early intervention as well as Applied Behavior Analysis, PECS, and TEACH practices. 3 credits PREREQUISITES: SPED 230, SPED 451, AND SPED 472 OR SPED 474.

## SPED 490 Student Teaching in Special Education

A culminating experience that will demonstrate the integration of theory and effective practices in special education. The students will achieve this through an on-site experience with children and youth who have a range of disabilities for eight weeks. A mentor teacher is assigned to provide daily feedback and guidance in the planning, preparation, instruction, and evaluation of the effectiveness of learning experiences for children and youth with special needs. A University supervisor oversees the student teaching experience and students attend bi-weekly seminars at Carlow. 6 credits PREREQUISITES: COMPLETION OF ALL SPECIAL EDUCATION CERTIFICATION REQUIREMENTS WITH A MINIMUM GPA OF 3.0. NOTE: NO OTHER COURSES MAY BE TAKEN WHILE A STUDENT IS REGISTERED FOR SPED 490 WITHOUT SPECIAL PERMISSION OF THE CHAIR OF SPECIAL EDUCATION.

## THEOLOGY

## TH 101 Religion and Human Experience

A study of the dynamics of human experience and the religious understanding of God as mystery. The course also explores the human experience of grace, love, prayer, sin, and salvation. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 131 Introduction to the Old Testament

An introduction to the Old Testament as a religious document of ancient Israel. The major themes introduced are: revelation, inspiration, interpretation, salvation history, and the importance of contemporary scholarship for understanding the historical, linguistic, cultural, literary, and religious contexts of the various books.
3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 132 Introduction to the New Testament

A study of the New Testament with special emphasis on the experience of the early Christian communities that produced the epistles and the gospels. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 140 Dynamics of Faith

Examination of personal faith experiences in light of tradition and theological reflection. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 141 The God Question Today

A study of contemporary images and concepts of God, particularly those that can be related to the Jewish and Christian experience.
3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 143 The Church as a Developing Community

A consideration of biblical, historical, and theological questions about the Church. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 147 Myth, Symbol, and Sacrament

This course examines the dynamics of the revelation of God and the sacred through the unique language of myth and symbol and the experience of sacrament. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 151 Search for Human Values

An introduction to Christian moral theology, along with an examination of theories about value formation, the development of personal conscience, and the relationship of religious faith to ethical decision making. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 155 Mercy and Justice in the World

This course explores the body of literature known as Catholic Social Teaching-the voice of the Church raised to address social problems in the world. Often described as "the Church's best kept secret," Catholic Social Teaching offers insight into the profound revelation of God's justice demanding the dignity of peace who suffer inequalities, and the challenge to address social structures that threaten the dignity of communities. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 156 Love, Marriage, and Family

Exploration of the human values in marriage, love, and family from a Christian perspective. Biblical, systematic, ethical, and pastoral approach. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 160 History of Christianity

A study of the development of Christianity from its beginning until the present. Course conceived as an ecumenical experience. 3 credits

## TH 167 Christianity and American Society

An exploration of the relationship between Christianity and the American experiment. Historical, theological, cultural, political, and sociological questions will be addressed pertaining to this relationship. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 190 Major World Religions

A theological approach to Hinduism, Buddhism, Judaism, Christianity, and Islam with a particular emphasis on the prospects of dialogue between Christianity and the other major religions. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 195 The Problem of Suffering

This course explores an understanding of God as love and compassion, as well as the crucial human questions that arise in the face of radical suffering. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 215 Catholicism

An introduction to Roman Catholic Christianity. Historical perspectives will be considered. Primarily, though, emphasis will be placed on the particular hermeneutics with which Catholicism approaches scripture and sacrament. Emphasis will be placed on Catholicism in the modern world. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 221 Women and Religion

An exploration of the religious experiences of women and the expectations placed on women by churches. The course will discover women's place as participants in the believing and ministering community. 3 credits FULFILLS THEOLOGY OR WOMEN'S STUDIES LAI REQUIREMENT.

## TH 228SL God, Human Politics, and Economic Structures

Through service-learning, this course challenges the student to apply the critical role of the God revealed in history to the dynamics of current historical events in human politics and economic structures.
3 credits FULFILLS THEOLOGY LAI AND SERVICE-LEARNING REQUIREMENTS.

## TH 232 The Four Gospels

A study of the literary and theological characteristics of each of the four gospels as four faith portraits of the early Christian church and their experience of Jesus of Nazareth. 3 credits

## TH 236 Pauline Thought

Consideration of Paul as the first great Christian theologian highlighting the principal themes in his writing. 3 credits

## TH 241 Jesus the Human Face of God

An examination of the historical, developmental, and contemporary theological issues concerning Jesus of Nazareth. 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 248SL Theology of Mercy

This service-learning course explores the depth and riches of the mercy of God through "small acts of service and charity" (C. McAuley). Utilizing the theological literature of the Sisters of Mercy and other theologians, the student incorporates wisdom and service in light of the mercy of God. 3 credits FULFILLS THEOLOGY LAI AND SERVICE-LEARNING REQUIREMENTS.

## TH 250 Religion and Science

An introduction to the relationship between religion and science, including the history of that relationship, developments in methodologies, areas of difference and convergence, and contemporary and future possibilities. 3 credits

## TH 255 Writing the Sacred

An introduction to writing in the discipline of theology. Theological writing does not describe reality, but creates it. Writing in this mode is like a "breath that touches in words" (Irigaray). 3 credits FULFILLS THEOLOGY LAI REQUIREMENT.

## TH 2701 (TR 270I) Theatre and Theology

This course is designed to explore the creative process and connection between the performing arts and theology. If theology is faith seeking understanding, then understanding must come about through performing the experience of what it means to be human. In theatre the performers come to a deeper understanding of what it means to be human by taking on the character whose crisis, suffering, emotions, and decisions are all involved in resolving a human situation, as well as the possibility of no resolution, only the encounter with human frailties, limitations, hopes, and aspirations. Such too is the essence of theology that brings one to the revelation of mystery in the events and characters of human beings. The course will demonstrate how the dynamics of the revelation of the sacred and profane are essential in both theatre and theology. 3 credits FULFILLS FINE ARTS AND THEOLOGY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## TH 305I (AR 305I) Memory

An exploration of the topic of memory through the two lenses of theology and art, the student will assimilate aspects of the material presented by each professor into an understanding that places the two viewpoints into a more holistic framework. 3 credits FULFILLS NTERDISCIPLINARY REQUIREMENT. PREREQUISITE: CC 101.

## TH 310 Special Topics

A very focused course on a particular theological topic. Designed specifically for theology majors/minors. Open to all majors with adequate background. 3 credits

## TH 330 Prophets of the Old Testament

A study of the major and minor prophetical books of the Old Testament with emphasis on their theological and ethical teachings. 3 credits

## TH 352 Contemporary Moral Problems

Exploration of the basic principles of Christian moral decision making. This survey of major moral problems includes Christian perspectives on human sexuality, the value of human life raised by the medical profession, and issues of social justice. 3 credits

## TH 400 Independent Study

This course is intended for theology majors as preparation for a capstone experience. An independent study in theology is not limited to theology majors, but a student must have demonstrated a level of independent research in theology before enrolling in this course.
Credits vary

## THEATRE

## TR 103 Introduction to Theatre Arts

An introduction to the styles and conventions of the major periods of theatre in Western culture that develops an approach to theatre as a performing art. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## TR 105 Theatre in Production

An introduction to the experience of live theatre that makes use of the wide variety of theatrical productions in the Pittsburgh area to help the student develop analytic and critical skills. 3 credits

## TR 203 Oral Interpretation of Literature

Experience in using the voice expressively through interpretation of prose, poetry, and drama under various performance conditions. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## TR 205 Acting

An introduction to the conventions and methods of the actor's art which provides a basis for both the beginning actor and students who wish to increase their appreciation of stage performance. 3 credits

## TR 206 Directing

An introduction to the fundamentals of interpreting and realizing a production from script to public performance. 3 credits

## TR $210 \quad$ Special Topics

Provides an opportunity to present specially designed courses in individual and distinctive topic areas. 3 credits

## TR 217 Shakespeare's Theatre

An introduction to Shakespeare's plays from a theatrical and structural point of view, emphasizing production concepts. 3 credits

## TR 218 History of Musical Theatre

An overview of the many forms of musical theatre from ancient Greek to Brecht, from opera to the modern Broadway musical. 3 credits

## TR 219 Contemporary Theatre

An introduction to the various styles of current theatrical performances from realism to contemporary eclectic styles. 3 credits FULFILLS FINE ARTS LAI REQUIREMENT.

## TR 2701 (TH 270I) Theatre and Theology

This course is designed to explore the creative process and connection between the performing arts and theology. If theology is faith seeking understanding, then understanding must come about through performing the experience of what it means to be human. In theater the performers come to a deeper understanding of what it means to be human by taking on the character whose crisis, suffering, emotions, and decisions are all involved in resolving a human situation, as well as the possibility of no resolution, only the encounter with human frailties, limitations, hopes, and aspirations. Such too is the essence of theology that brings one to the revelation
of mystery in the events and characters of human beings. The course will demonstrate how the dynamics of the revelation of the sacred and profane are essential in both theater and theology.
3 credits FULFILLS FINE ARTS AND THEOLOGY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## TR 2801 (PH 280I) Philosophy and Theatre

This interdisciplinary course compares two periods in the history of Western philosophy with two periods in the history of Western theatre. Students will study major works in both philosophy and theatre. 3 credits FULFILLS PHILOSOPHY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## TR 315I (PH 315I) Theatre in Political Philosophy

Students will study the interdisciplinary relationship between theatrical productions and politics with particular emphasis on the uses of theatrical techniques to promote political philosophies in contemporary American politics. 3 credits FULFILLS PHILOSOPHY LAI AND INTERDISCIPLINARY REQUIREMENTS.

## TR 325 (PH 325I) Philosophy, Humor, and Comedy

Interdisciplinary class designed for philosophy or theatre majors and minors. The class is an overview of Western comedy and humor from the perspective of the history of Western philosophy. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

## TR 400 Independent Study

Enables students to design a course in an area of theatre not covered by current courses. Requires the approval and sponsorship of a faculty member prior to registration. Credits vary

WOMEN'S AND GENDER STUDIES

## WS 101 Introduction to Women's and Gender Studies

An introductory course exploring the historical conditions of women and gender in modernity. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.

WS 120 (POL 120) Introduction to Leadership and Women An exploration of theories, scholarship, and styles related to leadership behavior and skills. Students will recognize, observe, and appreciate styles of leadership, especially among women. Particular emphasis is given to the contributions and changes they make at all levels of their lives for the good of systems of various sizes. 3 credits FULFILLS WOMEN'S AND STUDIES LAI REQUIREMENT.

## WS 205 (HS 205) History of American Women

A study of the history of women in America from the colonial era to the present focusing on struggles for equal rights, family, sexuality, feminism, leadership, and the impact of race, class, and ethnicity.
3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.

WS 209 (AR 209) Women and Art
An investigation of the history of art through the lens of feminist critical theory. Explores the production and status of women artists and patrons as well as the representation of women in art from the Renaissance to the present. Students critically engage with course materials through class dialogue, written assignments, and collaborative projects. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES OR FINE ARTS LAI REQUIREMENTS. PREREQUISITE: AR 102.

## WS 211 Women and Creativity

An interdisciplinary approach to how women have been valued for their creativity and how women value and express their own creativity. The course takes a broad cultural approach to creativity and innovation across the disciplines. 3 credits
FULFILLS WOMEN'S AND GENDER STUDIES LAI AND GLOBAL REQUIREMENTS.

## WS 221 (TH 221) Women and Religion

Exploration of the religious experiences of women and the expectations placed on women by churches. The course will discover women's place as participants in the believing and ministering community. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES OR THEOLOGY LAI REQUIREMENT.

WS 228 (POL 228, SO 228) Gender Law and Public Policy This course analyzes laws, public policies, and practices that have constructed and regulated gender in the public and private sectors, with special attention to employment and education. It examines the historical constructions of gender as a concept in American society, including how and why this concept was institutionalized publicly and privately in various arenas of the U.S. at different historical junctures. The course will conclude with a study of the progress that has been made in dismantling gendered institutions and the challenges that remain. 3 credits
FULFILLS WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.

## WS 230 (SO 230) Women in Culture and Society: A Cross-Cultural, Interdisciplinary Approach

An interdisciplinary examination of issues of gender in U.S. society and across other cultures. The basis of gender differences is explored, and then the course examines a number of aspects of society and culture-economics, politics, families, education, communication, and religion-in terms of gender differences. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI, GLOBAL, REQUIREMENT. PREREQUISITES: CC 100, CC 101, AND CC 102.

## WS 233I (EN 233I) Visions of Social Change: Global Women's Writing

An interdisciplinary course that draws on the pedagogy and disciplines of women's studies and English to explore global women's writing about social justice. The interdisciplinary approach of the literary materials and women's studies perspectives is integrated into students' readings, research, and collaborative in-class projects. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI, AND GLOBAL, REQUIREMENT.

## WS 236 (CM 236) Gender Differences in Communication

 An examination of gender differences in communication that are sustained by cultures. Students will explore how gender roles are created and perpetuated. They will then examine the ways our interpersonal and social interactions, including our experience with the mass media, influence our probability of success, satisfaction, and self-esteem. In assignments and discussion, students will link theory and research on gender and communication with their personal lives. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.
## WS 237 Special Topics: Women's Studies

Course to be offered in a topic area of a women's studies core course. Course satisfies Women's Studies Core and Women's and Gender Studies Minor requirements. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.

## WS 250 Images of Women in Film

Introduction to the basic vocabulary and techniques of analysis and criticism by examining images of women in film. 3 credits

## WS 251S (SO 251S) Cross-Cultural Perspectives on Child-Rearing and Child Care

This course is a cross-cultural examination of child rearing and child care that focuses on contemporary societies ranging from developing countries to highly industrialized societies. The course also considers cross-cultural variations, practices, and a critical examination of the adequacy of child rearing and child care in American society. 3 credits FULFILLS WOMEN'S AND GENDER STUDIES LAI, AND GLOBAL AND REQUIREMENTS.

## WS 265 (PY 265) Psychology of Women

An overview of theories and current research on the psychological nature of women, specifically related to the adult life cycle of women from adolescence through maturity. Adult female life will be examined with particular emphasis on critical periods of development as these developments affect the emotional life of the modern woman. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## WS 3001 (EN 300I) Environmental Justice

This interdisciplinary examination of environmental justice issues explores works by various authors and contemporary films. The interdisciplinary approach of the literary materials and women's studies perspectives is integrated into students' readings, research, and collaborative in-class projects. 3 credits FULFILLS WOMEN'S STUDIES AND LITERARY ARTS LAI AND INTERDISCIPLINARY REQUIREMENT.

## WS 310 (SO 310) Women and Work

This course examines the experiences of women in paid and unpaid work. Women comprise a significant and growing portion of the labor force. Their positions and experiences are very diverse and rooted in the specific historical and social contexts in which they live and work. The course begins with an overview of gender in society and the structure of the United States economy. It will examine the history of women's employment and women's current status in the workforce. A significant portion of the semester will be devoted to women in poverty and low-wage work. The course will conclude with
an exploration of the strains associated with women's professional work experiences. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## WS 313I (PH 313I, POL 313I) Women in Politics: Running for Office

An exploration of women's politics and political interest using feminist theories and gender-specific positions that lead to an understanding of what motivates individuals to run for office. Genderspecific concerns and obstacles confronted by women interested in political participation and leadership will be covered. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE AND WOMEN'S STUDIES LAI AND INTERDISCIPLINARY REQUIREMENTS.

## WS $320 \quad$ Feminist Theories

This course introduces students to a variety of theories that address the imbalance of power between men and women and the oppression and discrimination that result. Through a focus on feminist theories on gender as a central element of power, students become familiar with the field of feminist scholarship on women and gender. The course also introduces students to the intersections among gender, race, class, and sexuality in the lives and writings of diverse women. Upon completion of this course, students will understand a variety of feminist theories, including the theory of gender, race, class, and sexuality as interlinked, as well as the principles informing women's activism. 3 credits FULFILLS WOMEN'S STUDIES LAI AND GLOBAL REQUIREMENTS.

## WS 322 (AR 322, HS 322) Representations of Women: High Art/Popular Culture

A study and critique of concepts of gender and sexuality in representative texts (film, painting, music, and television). Critical and source materials are drawn from art history, cultural studies, feminist theory, and history. 3 credits

## WS 325I (HS 325I) Girl Cultures

The course draws on the methods and materials of history, women's studies, and cultural critique to introduce students to the fields of girl studies and third wave feminist theory. Using a framework that emphasizes the intersections of gender, race, class, sexuality, and nationality in cultures, theories, and activism that girls and women create and navigate, students gain a deeper understanding of the formation of girl cultures from a theoretical and empirical perspective. Girlhood does not simply reflect society; it foreshadows new social and cultural practices, temporary as they may be, in a prophetic and annunciatory way. Students will be expected to treat girlhood as constituted through experience, a careful analysis of which should lead to the historicization of that process. 3 credits FULFILLS WOMEN'S STUDIES AND HISTORY LAI, GLOBAL, AND INTERDISCIPLINARY REQUIREMENTS.

## WS 351 (HS 351) Women and American Labor History

Contributions of women to the American labor movement; past and current issues in female participation in workers' movements in the United States. 3 credits FULFILLS HISTORY OR WOMEN'S AND GENDER STUDIES LAI REQUIREMENT.

WS 355 (PH 355) Feminist Philosophy
A study of philosophies of women and women's philosophies such as those of Woolf, deBeauvoir, Chodrow, Gilligan, and post-structural feminists. The course is designed to examine the development and impact of feminist thought in contemporary society. 3 credits

## WS 3801 (HS 380I) Special Topics in Women's History

Topics vary. 1 to 4 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

WS 400 Independent Study
3 credits

## WS 415 (SW 415) Women, Work and Well-Being

This course explores the history of women and work through a series of case studies. Gender roles, race and ethnicity and socioeconomic factors will be considered in discussion. It also looks at the impact of the work environment on the well-being of women. 3 credits

> COLLEGE OF LEADERSHIP AND SOCIAL CHANGE

## MAJORS

ACCOUNTING
FORENSIC ACCOUNTING
 FRAUD, AND FORENSICS DEPARTMENT

## MINORS

ACCOUNTING

## CERTIFICATES

## ACCOUNTING

FORENSIC ACCOUNTING

## ACCELERATED PROGRAM

BS/BA TO MS IN FRAUD AND FORENSICS
BS/BA TO MASTER OF
BUSINESS ADMINISTRATION

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - ACCOUNTING, FRAUD, AND FORENSICS DEPARTMENT

## ACCOUNTING, FRAUD, AND FORENSICS DEPARTMENT POLICIES

## RESIDENCY REQUIREMENT

A student must complete a minimum of 21 credits from the Accounting Department to earn a bachelor's degree. Grade requirement: a student must complete all major, minor, and support courses with a minimum grade of C .

DECLARING A MINOR
Any student declaring a minor offered by the Accounting or Management Departments is assigned a minor advisor from within the school. The student, in consultation with the accounting/management advisor, and with her/his major advisor, selects the specific minor course requirements. Students majoring in other fields can earn a minor in accounting.

## ACCOUNTING MAJOR

The accounting major requires the student to complete 39 credits in accounting as well as courses in the business management and information technology management curriculum. Students can opt for a double major and/or a minor by combining accounting with another discipline by consulting with their advisor.

The accounting major leads to the Bachelor of Science degree. The curriculum integrates a strong accounting, business, technology, and liberal arts education with the requirements for application for various licenses, such as a Certified Public Accountant (CPA) as established by the Commonwealth of Pennsylvania. (Please see the Pennsylvania Institute of CPAs website for current licensure requirements.) Students also participate in an internship or practicum which enables them to earn experience in the field of accounting.

Major Course Requirements: 82
ACC 105, ACC 106, ACC 205, ACC 305, ACC 306, ACC 307, ACC 308, ACC 311, ACC 312, ACC 405, ACC 406, ACC 407, ACC 413, ACC 460, BSM 103, BSM 202, BSM 226, BSM 301, BSM 304, BSM 401, BSM 410, BSM 419, IT 143, IT 150, IT 200, IT 242, IT 372, and MAT 115 or MAT 106 .

## ACCOUNTING CERTIFICATE

An accounting certificate can be pursued by a student who possesses an undergraduate bachelor degree. This certificate consists of 36 credits in accordance with the CPA licensure requirements.

## Certificate Course Requirements: $\mathbf{3 6}$ credits

ACC 105, ACC 106, ACC 205, ACC 305, ACC 306, ACC 307, ACC 308, ACC 311, ACC 312, ACC 405, ACC 406, and ACC 407.

## ACCOUNTING MINOR

A student who chooses to major in another discipline can also consider a minor in accounting. The student must complete six courses in accounting, chosen in consultation with an accounting advisor, to fulfill the minor requirements.

## Minor Course Requirements: 18 credits

ACC 105, ACC 106, ACC 305, ACC 306, ACC 308, plus one of the following courses: ACC 205, ACC 307, ACC 311, ACC 312, ACC 405, ACC 406 or ACC 407.

## FORENSIC ACCOUNTING MAJOR

Carlow is one of the few universities nationwide that offers an undergraduate degree in forensic accounting. Forensic accounting is a rapidly growing area of accounting concerned with the detection and prevention of financial fraud and white-collar criminal activities. Forensic accounting is the integration of accounting, auditing, and investigative skills. Forensic accounting includes litigation support and investigative accounting. These areas deal with issues related to the quantification of economic damages caused by employee theft, securities fraud, insurance fraud, asset misappropriations, fraudulent statements, and professional negligence.

The forensic accounting major leads to a Bachelor of Science degree. All forensic accounting majors also earn a major in accounting. In addition, graduates of the forensic accounting program are qualified to sit for the Certified Public Accountant (CPA) exam and the Certified Fraud Examiners (CFE) exam. (Please see the Pennsylvania Institute of CPAs website for current licensure requirements.) These credentials are recognized globally and are regarded as an indicator of excellence in the accounting and anti-fraud professions.

## Major Course Requirements: 94 credits

ACC 105, ACC 106, ACC 205, ACC 305, ACC 306, ACC 307, ACC 308, ACC 311, ACC 312, ACC 405, ACC 406, ACC 407, ACC 413, ACC 460, ACF 331, ACF 332, ACF 333, ACF 440, BSM 103, BSM 202, BSM 226, BSM 301, BSM 304, BSM 401, BSM 410, BSM 419, IT 117, IT 143, IT 150, IT 200, IT 242, IT 372, and MAT 115 or MAT 106.

## FORENSIC ACCOUNTING CERTIFICATE (FOR STUDENTS WHO HAVE COMPLETED AN ACCOUNTING DEGREE)

A certificate in forensic accounting can be pursued by a student who possesses an undergraduate degree in accounting. Five courses (15 credits) are required. Completion of the certificate prepares a student to sit for the Certified Fraud Examiner (CFE) exam.
Certificate Course Requirements: 15 credits ACF 331, ACF 332, ACF 333, ACF 440, and IT 372.

## BS/BA TO MS IN FRAUD AND FORENSICS ACCELERATED PROGRAM

Undergraduate students in majors in the Management Department, the Management Department, Justice Studies Department, or Psychology Department are invited to apply to Carlow's Master of Science in Fraud and Forensics program prior to graduation (majors from other fields may petition to apply). Juniors and seniors admitted to this program would be permitted to take up to eight credits while they are still undergraduate students. This includes the following courses:

1. MFF 710 Fraud and Forensics community Experience, (2 credits), summer semester
2. MFF 711 White Collar Crime, ( 3 credits), fall semester
3. MFF 713 Fraud Prevention and Ethics, (3 credits), fall semester or MFF Legal Elements of Fraud, (3 credits), spring semester.

The four courses offered have been pre-selected as optimal for undergraduate students. To be given graduate credit, all graduate courses must be passed with a B- or above. These eight credits will also be counted toward the 120 credits needed for the undergraduate degree and be concurrently posted on the graduate transcript. Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a C+ through D-.

This opportunity can save students time and money if they are planning on starting into Carlow's MFF program. This is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. The classes will have both undergraduate and graduate students.

To remain in this program, students will need to maintain a 3.0 overall GPA average. The opportunity to enter the Fraud and Forensics program will present a path to a graduate degree unlike that offered by other universities.

This program is an Accelerated Bachelor's to Master's degree program. However, the student does not complete the program any faster-it takes an additional year regardless of taking MFF courses during their undergraduate career. As a result, the student does not graduate from the MFF any earlier.

Accelerated Master of Science in Fraud and Forensics begins during your Junior year.

To begin MFF study, the student can be in any major, and will need:

- Junior or Senior status
- Cumulative 3.2 GPA
- Undergraduate advisor's approval
- Submit application materials which include letters of recommendation from two Carlow faculty members and a personal statement prescribed by the MFF program.
- Approval of the MFF director upon completion of the above materials
- To remain in the program, students will need to maintain a 3.0 overall GPA average
- $\quad$ Students must earn a B- or above in all MFF courses for the course(s) to count for graduate credit
- $\quad$ Students can take a maximum of eight MFF credits
- MFF 710 Fraud and Forensics Community Experience (2 credits) must be taken during the summer before their final year at Carlow and before they start any MFF courses

Final and full admission to the MFF may be granted upon completion of the undergraduate degree from Carlow.

## BS/BA TO MASTER OF BUSINESS ADMINISTRATION ACCELERATED PROGRAM

Undergraduate students with a major in the Department of Business Management are invited to apply to Carlow's MBA program prior to graduation. Juniors and seniors admitted to this program would be permitted to take up to nine credits of MBA courses while they are still undergraduate students. These nine credits would apply toward the 36 credit MBA, leaving just 27 credits to finish the MBA, which could be done in one year if a student chooses to attend full-time and chooses the Business Administration track. The courses that an undergraduate is permitted to take are:

1. MBA 752 Advances in IT and IT Management, online or in class
2. MBA 722 Strategic Planning, in class
3. MBA 732 Financial Analysis and Planning, in class

Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a C+ through D-.

These nine credits will also be counted toward the 120 credits needed for the undergraduate degree. Admission into the program will be provisional. Full and final admission to the MBA may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

This opportunity can save students time and money if they are planning on starting into Carlow's MBA program. It is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. To stay in the program, students will need to maintain a 3.0 average.

Formal admission to the Masters in Business Administration begins during your Junior year.

To begin MBA study, the student will need:

- Major in the Department of Business Management or Management Department
- Junior status when applying
- Cumulative 3.2 GPA
- To remain in this program, students will need to maintain a 3.0 overall GPA average
- Undergraduate advisor's approval
- Submit application materials, which include letters of recommendation from two undergraduate instructors and a personal statement to be formally admitted.
- Approval of MBA director(s)

Final and full admission to the MBA may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

## MAJORS

COMMUNICATION AND MEDIA CORPORATE COMMUNICATION

## MINORS

COMMUNICATION
MASS MEDIA

## PROGRAM

EARLY ASSURANCE AGREEMENT WITH UNIVERSITY OF PITTSBURGH GRADUATE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS MASTERS PROGRAMS

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - COMMUNICATION DEPARTMENT

## COMMUNICATION AND MEDIA MAJOR

The major in Communication and Media prepares students for 21st Century careers in all areas of Communication practice, providing a rich grounding in theory and application and leading to a Bachelor of Arts degree. The major offers a diverse curriculum that prepares students to create, critique, and utilize various media to advocate for organizations, clients, and causes. The Communication and Media major provides students with the knowledge and skills that every employer values - excellent written, oral, and digital communication skills, sound research and interviewing skills, and a strong foundation in Communication theories, strategies, and ethics.

This major is designed for students who seek to use their communication knowledge and skills in a variety of potential careers and organizations. Graduates find positions in media outlets, government, business, and non-profit organizations. The curriculum also prepares students for study in a variety of graduate programs.

## Required Courses:

SSC 100*, SSC 120 (or CM 120), SSC 230*, and two course research sequence

## Required Communication Courses:

CM 104, CM 200* CM 210, CM 232, CM 242, CM/EN 260, CM 300, CM 360, CM 405*, CM 450, CM 457
[*ADC students may substitute a three-credit communication course for CM 405: Internship. They are also exempt from SSC 100, SSC 230 and CM 200.]

## Elective Courses: 9 credits from the following communication courses

CM 225, CM 236 (WS 236), CM 240, CM 290, CM 307 (AR 307), CM 310SL (SW 310SL), CM 320, CM 325, CM 330 (EN 330), CM 350I (SW 350I), CM 370, or a Pittsburgh Filmmakers course (PF).

All credits taken in major courses must be completed with a minimum grade of C .

## CORPORATE COMMUNICATION MAJOR

The interdisciplinary Corporate Communication major combines courses from the Departments of Communication and Business Management, leading to a Bachelor of Arts degree. Students develop a thorough understanding of behavioral theories and concepts that explain and predict human interaction in the workplace. In addition, particular emphasis is focused on the development of writing, speaking, marketing, interpersonal, team, and leadership skills that are necessary for careers in various communication fields in corporate settings such as corporate communication, public relations, integrated marketing communication, human resources, and advertising. Students also receive excellent preparation for graduate study in communication, law, business administration, and more.

## Required Courses:

SSC 100*, SSC 120 (or CM 120), SSC 230*, and two course research sequence

## Required Communication Courses:

CM 104, CM 200*, CM 210, CM 232, CM 290, CM 405*, CM 450, CM 457

## Elective Communication Courses: 6 credits taken from the following

CM 225, CM 236 (WS 236), CM 240, CM 242, CM 260 (EN 260), CM 300, CM 307 (AR 307), CM 310SL (SW 210SL), CM 320, CM 325, CM 330 (EN
330), CM 360, OR CM 370

## Required Business Management Courses:

BSM 103, BSM 202, BSM 203, BSM 301, BSM 401, BSM 404

## Elective Business Management Courses: 6 credits from the following

BSM 226, BSM 231, BSM 328, BSM 329, BSM 333, BSM 408, BSM 410, BSM 413, BSM 419
[*ADC students may substitute a three-credit communication course for CM 405: Internship. They are also exempt from SSC 100, SSC 230, and CM 200.] All credits in major courses must be completed with a minimum grade of C .

## COMMUNICATION MINOR

Students from a wide variety of disciplines throughout the University choose to minor in communication. This highly flexible minor is easily tailored to suit the particular needs and interests of students and often complements their primary area of study.

## Requirements:

15 credits beyond CC 101 or SKC 101 selected with a communication advisor. All 15 credits must be completed with a minimum grade of $C$ in each; nine credits must be completed in residence at Carlow.

## MASS MEDIA MINOR

Students interested in the uses, processes, and effects of mass media in society may elect to minor in Mass Media.

## Requirements:

CM 104 plus an additional 12 credits in media-oriented courses selected with a communication advisor. All 15 credits must be completed with a minimum grade of C in each; nine credits must be completed in residence at Carlow.

## MAJORS

CRIMINAL JUSTICE

- WITH CONCENTRATION IN CORRECTIONS
POLITICAL SCIENCE
- WITH CONCENTRATION IN COMPUTER INVESTIGATIONS AND SECURITY

SOCIOLOGY

## MINORS

CRIMINAL JUSTICE
POLITICAL SCIENCE
PRE-LAW
PUBLIC POLICY AND LEADERSHIP
SOCIOLOGY

## PROGRAM

3/3 JD LAW PROGRAMS (DUQUESNE UNIVERSITY AND UNIVERSITY OF PITTSBURGH)
EARLY ASSURANCE AGREEMENT WITH UNIVERSITY OF PITTSBURGH GRADUATE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - JUSTICE STUDIES DEPARTMENT

## CRIMINAL JUSTICE MAJOR

Criminal justice is a major within the Justice Studies Department. The major is designed to provide students with a comprehensive understanding of the nature of crime and the effectiveness and fairness of society's efforts to prevent and to control it. Students engage in a cross-disciplinary approach to the study of crime, offenders, and victims, as well as the agencies, laws, policies, and processes of the criminal justice system. The major emphasizes critical thinking about the types of questions and problems in the areas of administration of justice, criminology, domestic and global security, fraud, and the special challenges of cyber-crimes. Department faculty research and teach about important topics of concern to criminal justice professionals, such as: cyber-crime, fraud, and the impact of crime on juvenile and adult offenders.

Criminal justice graduates are admitted to law school, graduate programs, and are prepared for careers in domestic and international law enforcement and security, adult and juvenile corrections, and corporate investigative work.

## Major Requirements:

SSC 100 Seminar on the Self, SSC 120 Interpersonal/Relational Seminar, SSC 230 Self in Communities: Local to Global

## Program of Study:

All criminal justice majors must take: SO 152, SO 305, two courses in research methods: SSC 321 or SO 421 and SO 422, which are recommended to be taken during the junior year; an internship, SO 455, SO 180, SO 190, SO 315, and three courses from an approved list of electives to be selected in consultation with the advisor. Students must also take one of the following support courses: MAT 106, MAT 115, or PY 290.

## CRIMINAL JUSTICE MINOR

Students who are majoring in another area of study, but who are interested in study issues such as the administration of justice, criminology or security, may elect to minor in criminal justice. Students who minor in criminal justice must take: SO 152, SO 180, SO 190, and take four (4) electives from an approved list of electives to be selected in consultation with the advisor.

## Required Courses:

SO 152, SO 180, SO 190

Also select at least three of the following:
SO 185, SO 187, SO 215, SO/SW 218, SO 280, SO 315, SO 325, SO 255, SO 260, SO 285, SO 287, SO 289, SO 312, SO 316I, SO 228, PY 209, PY 352, and PY 488. (Note: This list is subject to modification. Check with the sociology advisor for additional courses.)

## POLITICAL SCIENCE MAJOR

Political science is the academic discipline that studies power and policy: how power is acquired; the challenges to retaining power; the impact of power on the relations between and among institutions and individuals in society; and the policies that result. Courses cover American politics, comparative politics, and international relations, and are designed to engage students in discourse regarding the concepts, organizations, and models that are at the core of the study of power and politics in the United States and internationally. Students will examine issues of control, freedom, gender, and influence as they study and assess the manner in which power and authority has impacted the development and organization of societies, relations between and among nations, and the management of conflict and peace.

The program is designed to provide students with a comprehensive background in the discipline; develop students' capacities to think critically and mindfully; train students to become informed, engaged and reflective citizens; and facilitate the acquisition of tools for analytical reasoning, primary and secondary research, and oral and written communication.

All majors are required to complete 51 credits ( 17 courses in SSC and 34 in POL), which situate the learner in social sciences and provide an introduction to American government, global politics, political theory, research methods and a capstone experience. Graduates of the program in political science are admitted to law and graduate programs and are prepared for careers in advocacy, legislative and policy analysis, journalism, international security analysis, and intenational business.

## Major requirements include:

SSC 100, SSC 120, SSC 230, POL 101, POL, 180, POL 210 or POL 209, POL 230, POL 287, POL 450, a two-course research methods sequence and the SSC capstone course.

Students are also required to complete two courses from the political science electives and two from the required cognates.

## Major Electives (Choose two, at least one of which is at the $\mathbf{3 0 0}$ level)

POL 220, POL/SO 228, POL 240, POL/SO 255, POL 265, POL/IT 290I, POL 313 (WS 313I, PH 313I), SO/POL 325, POL 330, POL 335, POL 350, POL 365, SW 303.

## Required Cognates—related courses (Choose two)

CM 104, CM 225, EO 103, PH 208, SO 151, SO 152, SO 260.
Majors must earn a C or better in any course used to fulfill a major requirement.

## POLITICAL SCIENCE MINOR

The political science minor may appeal to students who are interested in government relations, advocacy, journalism, intelligence, international relations, and lobbying. The minor requires POL 101 and five political science electives; 12 credits must be completed in residence at Carlow. Students must earn a C or better in any course used to fulfill a minor requirement.

## PUBLIC POLICY AND LEADERSHIP MINOR

POL 101, POL 287, plus an additional 12 credits in courses selected with the program advisor. All major and support courses must be completed with a minimum grade of C ; 12 credits must be completed while in residence at Carlow.

## PRE-LAW MINOR

The pre-law minor is open to students in any major and is designed to provide a structured program of studies in preparation for graduate or professional education or employment in law and law-related fields. The pre-law minor extends the liberal arts foundations by developing and enhancing the analytical reasoning, critical reading, and effective communication skills that are required for success in graduate and professional study of law and in legal careers. The selection of required and elective courses is based on recommendations established by the Association of American Law Schools.

The pre-law minor requires the completion of 18 credits, including three required courses: PH 204 (Logic); POL 265 (Constitutional Law I: U.S. Government Powers under the Constitution); CM 410 (Persuasion) or EN 244 or EN 348 (Corporate Writing or Strategic Plans); and three electives from among the following: ACC 105 (Accounting); POL/SO/WS 228 (Gender, Law, and Public Policy); POL/SO 325 (Race, Law, and Public Policy); POL 335 Mock Trial POL 365 (Constitutional Law II: Civil Rights and Civil Liberties); CM 320 (Conflict Management); CM 225 (Political Communication); BSM 329 (Fair Employment Practices); BSM 401 Legal Aspects of Business; BSM 408 (Labor Relations); and HS 233 (American Constitutional History).

## SOCIOLOGY MAJOR

Sociology is a major within the Justice Studies Department. Students explore the social dimensions of race and gender inequality, migration, poverty, the impact of globalization society, and cultural and religious influences on economic, political, and social issues. The major encourages students to engage in the scientific study of social life by employing quantitative and qualitative social science approaches to solve questions about society. Department faculty research and teach important societal concerns, such as immigration, inequality, globalization, and gender.

Sociology graduates are admitted to graduate and professional schools and take jobs in fields involving advocacy, client services, and social activism. Sociology majors are increasingly in demand as corporations and governments want graduates with the conceptual and/or statistical tools to make sense of rapid social changes.

## Major Requirements:

SSC 100 Seminar on the Self; SSC 120 Interpersonal/Relational Seminar; SSC 230 Self in Communities: Local to Global

## Program of Study:

Students are required to take a minimum of eleven (11) courses in sociology. Many students take more than the required number. All sociology majors must take: SO 152, SO 305, two courses in research methods: SSC 321 or SO 421 and SO 422, which are recommended to be taken during the junior year, and an internship, SO 455. Students must also take one of the following support courses: MAT 106, MAT 115, or PY 290.

## SOCIOLOGY MINOR

Students who are majoring in another area of study, but who are interested in studying the social dimensions of problems such as inequality poverty, race or gender may elect to minor in sociology. Students who minor in sociology must take SO 152 and five (5) sociology electives.

## 3/3 BA/JD LAW PROGRAMS (DUQUESNE UNIVERSITY AND UNIVERSITY OF PITTSBURGH)

Students who meet the qualifications, below, may elect to apply for an expedited path to law school at either the University of Pittsburgh or Duquesne University Schools of Law by participating in the 3/3 BA/JD program. This program allows students to earn both a bachelor's and a law degree in six years.

To qualify for consideration as a $3 / 3$ applicant, students must complete 90 credit hours of undergraduate work during their first three years at Carlow (including all Core Curriculum/Carlow Compass and major requirements); meet the University's requirements for graduation; maintain a cumulative GPA of 3.5 or higher; and score in the 60th percentile on the LSAT. Students meeting these requirements will have their applications reviewed by Carlow's director of pre-law advising for recommendation to the $3 / 3$ program. Recommendations are based upon attainment of the above criteria and other indices of academic achievement and preparedness for law school.

Students who meet all requirements and gain admission to either the University of Pittsburgh or Duquesne University School of Law can begin law school during their fourth year of study at Carlow. Students who successfully complete their first year of law school, at either the University of Pittsburgh or Duquesne University (or first three semesters), receive their bachelor's degree from Carlow. Upon completing all requirements for the JD degree, students will receive their law degree. Students may withdraw from the $3 / 3$ program at any time and complete a traditional four-year course of study for the baccalaureate degree.

## MAJORS

BUSINESS MANAGEMENT
HUMAN RESOURCE MANAGEMENT AND
TECHNOLOGY
MANAGEMENT IN HEALTH SERVICES

## MINORS

BUSINESS MANAGEMENT
HUMAN RESOURCE MANAGEMENT AND
TECHNOLOGY
INFORMATION TECHNOLOGY MANAGEMENT

## ACCELERATED PROGRAM

BS/BA TO MASTER OF BUSINESS
ADMINISTRATION
BS/BA TO MASTER OF SCIENCE IN FRAUD AND FORENSICS

## colLEge OF Leadership and social change - MANAGEMENT DEPARTMENT

## MANAGEMENT DEPARTMENT POLICIES

## RESIDENCY REQUIREMENT

A student must complete a minimum of 18 credits from the Accounting, Fraud, and Forensics or Management Departments to earn a bachelor's degree. Grade requirement: a student must complete all major, minor, and support courses with a minimum grade of C .

## DECLARING A MINOR

Any student declaring a minor offered by the Accounting, Fraud, and Forensics or Management Departments is assigned a minor advisor from within the school. The student, in consultation with the accounting/management advisor, and with her/his major advisor, selects the specific minor course requirements. Students majoring in other fields can earn a minor in accounting, business management, human resource management and technology, or information technology management.

## BUSINESS MANAGEMENT MAJOR

Business management gives particular emphasis to an understanding of the behavioral and systemic challenges that people face in organizations-profit and nonprofit-by providing students with a thorough knowledge of management concepts and applications. The business management major encompasses a course of study leading to a Bachelor of Science degree. This four-year program relates the analytical, the behavioral, and the conceptual theories of business and develops a perceptive and orderly approach to management situations. Students can opt for a double major by combining business management with another discipline by consulting with their advisors.

## Major Course Requirements:

For Day Students: 54 credits
BSM 103, BSM 105, BSM 106, BSM 202, BSM 203, BSM 226, BSM 301, BSM 304, BSM 307, BSM 401, BSM 410, BSM 413, BSM 419, BSM 460, EO 101, EO 102, IT 117 OR IT 200, IT 143, IT 150, and MAT 115.

For CAP, WEC Students: 51 credits
BSM 103, BSM 105, BSM 106, BSM 202, BSM 203, BSM 226, BSM 301, BSM 304, BSM 401, BSM 410, BSM 413, BSM 419, BSM 460, EO 101, EO 102, IT 117 OR IT 200, IT 143, IT 150, and MAT 106 or MAT 115.

## BUSINESS MANAGEMENT MINOR

A student who chooses to major in another discipline can also consider a minor in business management. The student must complete six courses in business management. The minor must consist of BSM 103, BSM 202, BSM 226, BSM 301, and two other BSM courses at the 300/400 level. These additional courses must be approved by the minor advisor.

## CORPORATE COMMUNICATION MAJOR SEE PAGE 112.

## HUMAN RESOURCE MANAGEMENT AND TECHNOLOGY MAJOR

Students in this major receive a solid human resource base coupled with the skills to design and manage a human resource information system (HRIS). Two HRIS courses are woven into the program to provide students with hands-on design and management exposure to components of HRIS concepts. Students graduating in this major will be qualified to work in human resource departments in several capacities.

## Major Course Requirements:

For Day Students: 69 credits
BSM 103, BSM 105, BSM 202, BSM 226, BSM 231, BSM 301, BSM 304, BSM 307 BSM 328, BSM 329, BSM 333, BSM 408, BSM 419, BSM 460, EO 101, EO 102, HRIS 101, HRIS 202, IT 117 OR IT 200, IT 143, IT 150, IT 242, IT 235, IT 372, and MAT 115.

## HUMAN RESOURCE MANAGEMENT AND TECHNOLOGY MINOR

A minor in human resource management and technology can be pursued by a student with specific interest. A student must complete BSM 103, BSM 226, BSM 328, BSM 333, HRIS 101, and one additional course from BSM 231, BSM 329, BSM 408, or HRIS 202.

## INFORMATION TECHNOLOGY MANAGEMENT MINOR

The information technology management minor is a great addition to any major since information technology will surely be part of most careers of the future. A minor in information technology management can be pursued by a student from any discipline with interest in this area. A student must complete six courses in information technology management chosen in consultation with an ITM advisor.

## Minor Course Requirements: 18 credits

IT 150, IT 151, IT 205, IT 235, IT 242 and IT 372.

Accounting, Forensic Accounting, and Human Resource Management and Technology majors can, in consultation with their advisor, opt for an ITM minor concentrating in database management.

## MANAGEMENT IN HEALTH SERVICES MAJOR

This program provides the educational background needed to be competitive in today's health care market. The program provides a solid background in business to complement the health services knowledge. This program prepares students to work in positions in the following areas: health care advocacy, long-term care, health care institutions, insurance, or physicians' practices.

## Major Course Requirements: DAY 58 credits

BIO 157 (or approved BIO course), BSM 103, BSM 202, BSM 204, BSM 226, BSM 301, BSM 305, BSM 306, BSM 307, BSM 410, BSM 460, E0 103 lor approved economics course), IT 117 OR IT 200, IT 143, IT 150, IT 242, MAT 115, PH 210, ACC 105, and six credits of electives from the list below.

## Major Course Requirements: CAP 55 credits

BIO 157 (or approved BIO course), BSM 103, BSM 202, BSM 204, BSM 226, BSM 301, BSM 305, BSM 306, BSM 410, BSM 460, E0 103 (or approved economics course), IT 117 OR IT 200, IT 143, IT 150, IT 242, MAT 106 or MAT 115, PH 210, ACC 105 and six credits of electives from the list below.

## Electives: Select nine credits from the following:

ACC 106, BIO 201 (or BIO 205), BIO 202 (or BIO 206), BSM 203, BSM 231, BSM 328, BSM 329, BSM 333, BSM 401, BSM 408, BSM 419, CM 370, POL 101, POL 287, SW 201, SW 303. Students are encouraged to use these elective credits towards a minor in their area of health care interest, HRIS 101, HRIS 102. They should consult their academic advisor for more information.

## BS/BA TO MASTER OF BUSINESS ADMINISTRATION ACCELERATED PROGRAM

Undergraduate students with a major in the Department of Business Management are invited to apply to Carlow's MBA program prior to graduation. Juniors and seniors admitted to this program would be permitted to take up to nine credits of MBA courses while they are still undergraduate students. These nine credits would apply toward the 36 credit MBA, leaving just 27 credits to finish the MBA, which could be done in one year if a student chooses to attend full-time and chooses the Business Administration track. The courses that an undergraduate is permitted to take are:

1. MBA 752 Advances in IT and IT Management, online or in class
2. MBA 722 Strategic Planning, in class
3. MBA 732 Financial Analysis and Planning, in class

Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a $\mathrm{C}+$ through D -.

These nine credits will also be counted toward the 120 credits needed for the undergraduate degree. Admission into the program will be provisional. Full and final admission to the MBA may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

This opportunity can save students time and money if they are planning on starting into Carlow's MBA program. It is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. To stay in the program, students will need to maintain a 3.0 average.

Formal admission to the Masters in Business Administration begins during your Junior year.
To begin MBA study, the student will need:

- Major in the Department of Business Management or Management Department
- Junior status when applying
- Cumulative 3.2 GPA
- To remain in this program, students will need to maintain a 3.0 overall GPA average
- Undergraduate advisor's approval
- Submit application materials, which include letters of recommendation from two undergraduate instructors and a personal statement to be formally admitted.
- Approval of MBA director(s)

Final and full admission to the MBA may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

## BS/BA TO MS IN FRAUD AND FORENSICS ACCELERATED PROGRAM

Undergraduate students in majors in the Management Department, the Management Department, Justice Studies Department, or Psychology Department are invited to apply to Carlow's Master of Science in Fraud and Forensics program prior to graduation (majors from other fields may petition to apply). Juniors and seniors admitted to this program would be permitted to take up to eight credits while they are still undergraduate students. This includes the following courses:

1. MFF 710 Fraud and Forensics community Experience, ( 2 credits), summer semester
2. MFF 711 White Collar Crime, ( 3 credits), fall semester
3. MFF 713 Fraud Prevention and Ethics, (3 credits), fall semester or MFF Legal Elements of Fraud, (3 credits), spring semester.

The four courses offered have been pre-selected as optimal for undergraduate students. To be given graduate credit, all graduate courses must be passed with a B- or above. These eight credits will also be counted toward the 120 credits needed for the undergraduate degree and be concurrently posted on the graduate transcript. Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a C+ through D-.

This opportunity can save students time and money if they are planning on starting into Carlow's MFF program. This is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. The classes will have both undergraduate and graduate students.

To remain in this program, students will need to maintain a 3.0 overall GPA average. The opportunity to enter the Fraud and Forensics program will present a path to a graduate degree unlike that offered by other universities.

This program is an Accelerated Bachelor's to Master's degree program. However, the student does not complete the program any faster-it takes an additional year regardless of taking MFF courses during their undergraduate career. As a result, the student does not graduate from the MFF any earlier.

Accelerated Master of Science in Fraud and Forensics begins during your Junior year.

To begin MFF study, the student can be in any major, and will need:

- Junior or Senior status
- Cumulative 3.2 GPA
- Undergraduate advisor's approval
- Submit application materials which include letters of recommendation from two Carlow faculty members and a personal statement prescribed by the MFF program
- Approval of the MFF director upon completion of the above materials
- To remain in the program, students will need to maintain a 3.0 overall GPA average
- Students must earn a B- or above in all MFF courses for the coursels) to count for graduate credit
- Students can take a maximum of eight MFF credits
- MFF 710 Fraud and Forensics Community Experience ( 2 credits) must be taken during the summer before their final year at Carlow and before they start any MFF courses

Final and full admission to the MFF may be granted upon completion of the undergraduate degree from Carlow.

## MAJORS

ART THERAPY PREPARATION
PSYCHOLOGY

- WITH CONCENTRATION IN COUNSELING
- WITH CONCENTRATION IN CRISIS AND TRAUMA
- WITH CONCENTRATION IN HUMAN DEVELOPMENT


## MINORS

ART THERAPY PREPARATION
COUNSELING (FOR NON-PSYCHOLOGY
STUDENTS)
CRISIS AND TRAUMA (FOR NON-PSYCHOLOGY
AND SOCIAL WORK MAJORS)
HUMAN DEVELOPMENT (FOR NON-
PSYCHOLOGY STUDENTS)
PSYCHOLOGY

## ACCELERATED PROGRAM

BA/BS TO MS IN PROFESSIONAL COUNSELING BS/BA TO MS IN FRAUD AND FORENSICS

## PROGRAM

EARLY ASSURANCE AGREEMENT WITH UNIVERSITY OF PITTSBURGH GRADUATE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS MASTERS PROGRAMS

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - PSYCHOLOGY AND COUNSELING DEPARTMENT

## ART THERAPY PREPARATION MAJOR (SEE PAGE 47)

Art therapy preparation is an interdisciplinary major sponsored by the art and psychology departments. This program prepares the student for further study in art therapy on a graduate level. The program integrates a strong fine arts background with an in-depth study of psychology and art therapy. Because of Carlow's urban location in the heart of a major medical and therapeutic complex, students have convenient access to observation and practicum experiences.

## Major Requirements:

AR 101, AR 102, AR 111, AR 114, AR 115, AR 221, AR 224, AR 227, AR 240, AR 315, AR 321, AR 311, AR 331, AR 355, AR 421, AT 205, AT 339, AT 406 or PY 450, AE 326, PY 101, PY 122, PY 203, PY 209, PY 285, WS 209.

## ART THERAPY PREPARATION MINOR

## Minor Requirements:

AR 111 or AR 115, AR 331, PY 203, PY 285, AT 205, AT 339.

## PSYCHOLOGY MAJOR

The psychology program aims to develop a scientific approach to the study of human behavior and experience. To this end, students are introduced to research methodology and critical analysis of current findings in a variety of fields of psychology, such as clinical, counseling, developmental, cognitive, social, and experimental. Internships with local facilities and research opportunities help students to learn about their field experientially.

The Bachelor of Arts degree in psychology provides a foundation for students aspiring to graduate study in psychology and counseling The degree also prepares students to enter training in social service and mental health programs in such areas as therapeutic activities, rehabilitation, casework, child care work, and service coordination.

Required: 28-29 credits in psychology
PY 101 Introduction to Psychology
PY 122 Lifespan Development
PY 203 Personality Theory
PY 2301 Biological Bases of Behavior or PY 230
PY 280 Cognitive Psychology or PY 340 Social Psychology
PY 290 Elementary Statistics
PY 306 or SSC 321
PY 320 Qualitative Research Methods or PY 325 Experimental Research Methods
PY 350 Senior Seminar

Psychology Electives: Choose at least two psychology electives. A minimum of 34 credits is needed for the psychology major.

## Required Support Courses: 3 credits

One English course beyond EN 101.

Required courses (See page 131 for a description of the SSC curriculum): 9 credits
SSC 100 Seminar on the Self
SSC 120 Interpersonal/Relational Seminar
SSC 230 Self in Communities: Local to Global

## PSYCHOLOGY MINOR

Requirements: 18 credits in Psychology including PY 101.
Transfer students must take at least nine credits at Carlow University.

## COUNSELING CONCENTRATION

Counselors assist people with personal, family, educational, mental health, substance abuse, and career issues so that they can lead healthier and more productive lives. Psychology majors interested in the helping professions may consider a concentration in counseling. Those not majoring in psychology can earn a minor in counseling.

## Counseling Concentration for Psychology Majors

The department understands that many of our graduates with their BA in psychology obtain pre-professional jobs within the helping professions. The concentration in counseling is designed to acquaint the student who is interested in a career in the helping professions with pre-professional-level counselor training.*

The concentration requires the following:
Students are required to satisfy the regular requirements for the major. In addition, they are required to complete at least 12 credits in counseling from the following list of courses: PY 285, PY 380, PY 382, PY 384, PY 420, PY 430, PY 440 and PY 488.

Transfer students may substitute a transfer course for one of the above, but only with the approval of the director of the undergraduate psychology program. A minimum of nine counseling credits must be taken at Carlow University
*The student is cautioned that graduate-level training is required before one can appropriately represent oneself as a professional counselor.

## COUNSELING MINOR FOR NON-PSYCHOLOGY MAJORS

The minor in counseling is offered by the Psychology and Counseling Department for students who are not majoring in psychology lthose who major in psychology may take a concentration in counseling). The department recognizes that many students who do not major in psychology choose careers in the helping professions (social work, nursing, education, sociology, human resources, etc.). The purpose of this minor is to provide pre-professional level knowledge and skills that will assist the student interested in the helping professions.

The minor requires a total of 18 credits including nine credits in psychology from the following list of courses: PY 101, PY 122, PY 203, PY 205, PY 206, PY 207, PY 209, PY 218, PY 265, PY 230I, PY/SW 270, PY 280, PY 306, PY 308, PY 340, PY 352, PY 404I, SW 216 (for social work majors only), SW 302 (for social work majors only), SW 304 (for social work majors only), AT 205 (for AT majors only), AT 339 (for AT majors only).

At least nine credits are required in counseling, including PY 285 and an additional six credits from the following list of courses: PY 380, PY 382, PY 384, PY 420, PY 430, PY 440, and PY 488.

Transfer students who wish to transfer course work from other institutions for this minor must obtain approval for the transfer credit from the director of the undergraduate psychology program. Transfer students must take a minimum of 9 credits at Carlow, six of which are in counseling.

## CRISIS AND TRAUMA CONCENTRATION FOR PSYCHOLOGY AND SOCIAL WORK MAJORS

Studies in the area of Crisis and Trauma provide a foundational focus ranging from immediate crisis assessment, intervention, and management through more specific issues such as child abuse prevention and treatment and partner violence as well as investigating the impact of trauma for individuals and families. The concentration in Crisis and Trauma provides students with a solid foundation in theory and research pertaining to crisis, abuse and trauma.

Students are required to satisfy the requirements for the major. In addition, they are required to complete the following courses in crisis and trauma: PY 430, PY 440, SW 420, and PY 488. Prior to taking these courses, students need to complete the following pre-requisites: PY 285 Intro to Counseling OR SW 302 Social Work with Individuals.

Transfer students may substitute a transfer course for one of the above, but only with the approval of the chair of the Social Work Department of the director of the undergraduate psychology program. A minimum of nine credits in crisis and trauma must be taken at Carlow University.

## CRISIS AND TRAUMA MINOR FOR NON-PSYCHOLOGY AND SOCIAL WORK MAJORS

The minor in Crisis and Trauma is offered though the College of Leadership and Social Change as collaboration between the Psychology Department and Counseling and the Social Work Department for students who are not majoring in psychology or social work. The psychology and social work departments recognize that many individuals who do not major in these areas choose careers for which a grounding in and an understanding of trauma and crisis will help them to become better informed and ultimately more competent professionals in their fields of choice.

This minor requires a total of 21 credits:
Requirements: PY 285 or SW 302, PY/SW 420, PY/SW 430, PY/SW 440, PY/SW 488, and two courses from the following list.

Electives: PY/SW 404I, PY/SW 382, PY 380, SW 304, approved special topics when available or selection of a PY or SW course with the guidance of a Crisis and Trauma minor advisor.

## HUMAN DEVELOPMENT CONCENTRATION

Studies in human development investigate the biological, behavioral, emotional, cognitive, and social factors that shape how humans grow and change. Such a focus is relevant to the helping professions, health sciences, and education, as well as general studies in psychology and other social sciences. Psychology majors who would like to better understand the concerns and complexities of specific age groups, from early childhood through late adulthood, may consider a concentration in human development. Those not earning a major in psychology may minor in human development.

## HUMAN DEVELOPMENT CONCENTRATION FOR PSYCHOLOGY MAJORS

The Concentration in Human Development provides students with a solid foundation in theory and research pertaining to human development across the lifespan.

The concentration requires the following:
Students are required to satisfy the regular requirements for the major, including PY 122 Lifespan Development. In addition, they are required to complete at least nine credits in developmental psychology from the following list of courses: PY 205, PY 206, PY 207, PY 216, PY 308, PY 404l, and PY 440.

Transfer students may substitute a transfer course for one of the above, but only with the approval of the director of the undergraduate psychology program. A minimum of nine developmental credits must be taken at Carlow University.

## HUMAN DEVELOPMENT MINOR FOR NON-PSYCHOLOGY MAJORS

The minor in human development is offered by the Psychology and Counseling Department for students who are not majoring in psychology (those who major in psychology may take a concentration in human development). The department recognizes that many students who do not major in psychology choose careers and/or graduate training for which an understanding of the psychophysiological changes across the lifespan are essential or beneficial (for instance, the helping professions, health sciences, education, and social sciences).

The minor requires a total of 18 credits, including nine credits in psychology from the following list of courses: PY 101, PY 209, PY 218, PY 230I, PY 265, PY/SW 270, PY 280, PY 285, PY 290, PY 306, PY 320, PY 325, PY 340, PY 352, PY 380, PY 382, PY 384, PY 420, PY 430, and PY 488.

At least nine credits in developmental psychology are required, including PY 122 Lifespan Development and six additional credits from the following list of courses: PY 205, PY 206, PY 207, PY 216, PY 308, PY 4041, and PY 440.

Transfer students who wish to transfer course work from other institutions for this minor must obtain approval for the transfer credit from the director of the undergraduate psychology program. Transfer students must take a minimum of 9 credits at Carlow, six of which are in human development.

## BA/BS TO MS IN PROFESSIONAL COUNSELING ACCELERATED PROGRAM

Undergraduate students with a major in psychology, social work, sociology, or criminal justice are invited to apply to Carlow's Master of Science in Professional Counseling (MPC) program prior to graduation. Juniors and seniors admitted to this program would be permitted to take up to 12 credits while they are still undergraduate students. This includes the following courses:

1. PRC 701: Human Growth and Lifespan Development
2. PRC 705: Helping Relationship
3. PRC 710: Counseling Theories
4. PRC 702: Social and Cultural Foundations
5. PRC 711: Diagnosis in Counseling (prior name: Abnormal Psychology)
6. PRC 738: Introduction to Substance Abuse Counseling*
*Must take PRC 711 and pass with a " B " in order to take PRC 738

The courses offered have been pre-selected as optimal for undergraduate students. To be given graduate credit, all graduate courses must be passed with a B- or above. These twelve credits will also be counted toward the 120 credits needed for the undergraduate degree and be concurrently posted on the graduate transcript. Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit even if the student earns a $C+$ through $D$-.

This opportunity can save students time and money if they are planning on starting into Carlow's MS in Professional Counseling program. It is also an opportunity for students to engage in higher-level work and interact with graduate students while completing their undergraduate coursework. To stay in the program, students will need to maintain a 3.0 average.

Formal admission to the program begins your junior year.

In order to begin MPC courses you must:

- Major in psychology, social work, sociology, or criminal justice
- Junior or senior status
- Achieve a cumulative GPA of 3.0 while at Carlow
- Meet Carlow residency requirements(completed 9 credits of psychology at Carlow and 15 Carlow credits overall)
- Achieve a minimum grade of $B$ in the MPC courses to continue in the program
- Undergraduate advisor's approval
- Submit application materials which include letters of recommendation lone of which must come from a member of the undergraduate psychology full-time faculty) resume, and a personal essay
- Approval of MPC director(s)

Three undergraduate psychology courses serve as prerequisites for specific MPC courses:

1. PY 203 Personality Theory to take PRC 710 or PRC 705
2. PY 122 Lifespan Development to take PRC 701 or PRC 711
3. PY 285 Introduction to Counseling or SW 302 Social Work with Individuals to take PRC 705 or PRC 710

Additional qualities that are not required but will elevate the likelihood of acceptance to the program include:

- Work experience in psychology, social work via employment, internships, or practica
- Research experience
- Strong writing skills
- $\quad$ Strong performance in undergraduate psychology coursework (3.3 or better)
- Strong letters of recommendations
- Membership in Psi Chi

Final and full admission to the MPC may be granted upon completion of the undergraduate degree from Carlow.

## MAJORS

## SOCIAL WORK

- WITH CONCENTRATION IN BEHAVIORAL HEALTH SERVICE COORDINATION
- WITH CONCENTRATION IN CRISIS AND TRAUMA


## MINORS

BEHAVIORAL HEALTH SERVICE COORDINATION CRISIS AND TRAUMA (FOR NON-PSYCHOLOGY AND SOCIAL WORK MAJORS)

## PROGRAM

EARLY ASSURANCE AGREEMENT WITH UNIVERSITY OF PITTSBURGH GRADUATE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS MASTERS PROGRAMS

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - SOCIAL WORK DEPARTMENT

## SOCIAL WORK MAJOR

The Bachelor of Social Work (BSW) degree provides a liberal arts foundation with a concentration in social work theory and practice. The BSW program is based on an understanding of generalist practice that prepares students to engage in the person-in-environment concept and to utilize problem solving to intervene with diverse systems of various sizes, including individuals, families, groups, organizations, and communities. Upon completion of selected courses, social work majors must proceed with an application process into the upper level social work requirements. This process must be completed prior to registering for field placement. Every social work major is required to participate in a 500 -hour agency-based field placement, as well as a corresponding classroom seminar. The social work program is accredited by the Council on Social Work Education. Social work credit is not given for life or previous work experience.

## Major Requirements: 49 credits

SW 104SL Introduction to Social Work
SW 201 Introduction to Social Welfare
SW 204 Theories and Methods of Practice
SW 214 Human Behavior and the Social Environment
SW 216 Communities and Organizations in Praxis
SW 270 Cultural Awareness
SW 301 Social Work Writing Lab
SW 302 Social Work Practice with Individuals
SW 303 Social Welfare Policy
SW 304 Families
SW 305 Group Work
SW 421 Research I
SW 422 Research II
SW 402 Field Placement I
SW 405 Field Seminar I
SW 406 Field Placement II
SW 407 Field Seminar II

Required Support Courses: PY 101 and SO 152. All students are required to take Biological Basis of Behavior 2301 and 231(Lab) or BIO 157 (or an approved biology course), and an approved statistics course.

Major Electives: SW 105SL, SW 218, SW 226SL, SW 279 (Special Topics), SW/CM 350I, SW/CM 351I, SW/PY 382, SW 404I, and SW 415, SW 430, SW 440, SW 488. Other electives may be taken in consultation with advisor.

NOTE: IT IS IMPORTANT FOR STUDENTS WHO ARE CONSIDERING THE PROFESSION OF SOCIAL WORK TO BE AWARE OF THE RULES AND REGULATIONS FOR LICENSING. YOU MAY REVIEW THESE ON THE WEBSITE FOR THE PENNSYLVANIA STATE BOARD OF SOCIAL WORKERS, MARRIAGE AND FAMILY THERAPISTS, AND PROFESSIONAL COUNSELORS. STUDENTS SHOULD CONTACT THE BOARD DIRECTLY FOR MORE INFORMATION. IN ADDITION, STUDENTS MAY BE ASKED TO OBTAIN CHILD ABUSE AND CRIMINAL BACKGROUND CLEARANCES AS PREREQUISITES TO A VOLUNTEER OR FIELD PLACEMENT EXPERIENCE.

## MINOR IN BEHAVIORAL HEALTH SERVICE COORDINATION

Prepares human service majors to be competent in addressing needs, service planning, accessing services, monitoring service delivery, resolving problems, and network building and linking. The goal of the minor and concentration is to provide competency-based, recoveryfocused education in social work and related fields to enable students to work effectively with consumers and the mental health community by fostering trust and support for recovery. Social work majors can earn a concentration in Behavioral Health Service Coordination instead of a minor.

## Requirements:

SW 201 or SW 226SL, SW 216, SW 302, SW 304, SW/PY 404 I or SW/PY 382, SW/PY 430, PY 450, and PY 451.

## BEHAVIORAL HEALTH SERVICE COORDINATION CONCENTRATION

This Concentration is for Social Work majors only. Take social work requirements plus concentration courses: SW 226SL, SW/PY 382 or SW/PY 4041, SW/PY 430. Field placement must be in a Behavioral Health Setting.

## CRISIS AND TRAUMA CONCENTRATION FOR PSYCHOLOGY AND SOCIAL WORK MAJORS

Studies in the area of crisis and trauma provide a foundational focus ranging from immediate crisis assessment, intervention, and management through more specific issues such as child abuse prevention and treatment and partner violence as well as investigating the impact of trauma for individuals and families. The concentration in crisis and trauma provides students with a solid foundation in theory and research pertaining to crisis, abuse and trauma.

Students are required to satisfy the requirements for the major. In addition, they are required to complete the following courses in crisis and trauma: PY 430, PY 440, SW 420, and PY 488. Prior to taking these courses, students need to complete the following pre-requisites: PY 285 Intro to Counseling OR SW 302 Social Work with Individuals.

Transfer students may substitute a transfer course for one of the above, but only with the approval of the chair of the Social Work Department of the director of the undergraduate psychology program. A minimum of nine credits in crisis and trauma must be taken at Carlow University.

## CRISIS AND TRAUMA MINOR FOR NON-PSYCHOLOGY AND SOCIAL WORK MAJORS

The minor in crisis and trauma is offered though the College of Leadership and Social Change as collaboration between the Psychology and Counseling Department and the Social Work Department for students who are not majoring in psychology or social work. The psychology and social work departments recognize that many individuals who do not major in these areas choose careers for which a grounding in and an understanding of trauma and crisis will help them to become better informed and ultimately more competent professionals in their fields of choice.

This minor requires a total of 21 credits:

Requirements: PY 285 or SW 302, PY/SW 420, PY/SW 430, PY/SW 440, PY/SW 488, and two courses from the following list

Electives: PY/SW 404I, PY/SW 382, PY 380, SW 304, approved special topics when available or selection of a PY or SW course with the guidance of a Crisis and Trauma minor advisor

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE - SOCIAL CHANGE CURRICULUM

## OVERVIEW

The social change curriculum draws from the academic disciplines the College of Leadership and Social Change: communication management, political science, psychology, social work, and sociology that employ a social scientific approach to the study of human behavior. The curriculum provides an array of academic and co-curricular experiences that are embedded and designed to increase students' civic engagement and enhance their psychosocial development, with the goal of moving students into positions as change agents in service to organizations and communities from local to global.

This undergraduate program is grounded within Carlow University's liberal arts tradition, and infused in the disciplines. The pillars of the program are: academics, advocacy, civic engagement, and experiential learning. The classroom experience is augmented by internships and programming, which allows students to participate in applied social science opportunities. This program is responsive to the Mercy mission of social justice and includes the study of empowerment: empowering students to empower others. Students are encouraged to view themselves as scholars, citizens, and leaders. As students move from introductory courses in the disciplines, to becoming members of communities of practice, they see themselves both as part of the process and as agents of change.

The curriculum builds students' aptitudes in the disciplines and across the liberal arts. The program is designed to allow students to move from competency in the introductory level courses; to proficiency in the upper level courses in the disciplines; to mastery as the students develop and present their own scholarship; and finally to entry into communities of practice.

In the first two years of study, students complete three (3) seminars, in addition to discipline-specific courses, designed to introduce them to the theories and tools involved in the study of the social sciences:

- SSC 100: Seminar on the Self
- SSC 120: Interpersonal/Relational Seminar
- SSC 230: Self in Communities: Local to Global

In the third through fourth years of study, SSC students progress as a cohort through the following seminars:

- The Research Process Series
- An SSC Capstone and/or a discipline capstone

These first-year courses are suspended for adults and transfer students except in those cases where academic programs have substituted an SSC course for a departmental/program requirement

## LEADERSHIP AND SOCIAL CHANGE MINOR

The minor in Leadership and Social Change has an interdisciplinary focus, which examines leadership and civic engagement from a social science perspective. Drawing from the disciplines of communication, management, political science, psychology, sociology, and social work, the minor explores concepts, theories, and research that are essential to developing leadership skills, including an understanding of self and others, to create career-ready, ethical leaders who will facilitate positive change. The minor consist of 18 credits (six classes) and begins with the following three interdisciplinary classes.

- SSC 100: Seminar on Self or PY148
- SSC 120: Interpersonal Relations Seminar or CM 120: Interpersonal Communication
- SSC 230: Self in Communities: Local to Global

These introductory classes are the foundation for the examination of self as a psycho-social being who wants to work with others and be a positive change agent in service to organizations or communities at a local or global levels.

Once the student has completed these classes, he/she must complete two additional classes related to this topic. Suggested courses include:

## Area I: Leadership

Choose one:
BSM 302: Women as Managers
BSM 408: Labor Relations
BSM 410: Strategic Planning
CM 225: Political Communication
CM 236 (WS 236): Gender Differences in Communication
CM 300: Leadership and Teambuilding
POL 120 (WS 120): Introduction to Leadership and Women
POL 313 I (WS 313I, PH 313I) Women in Politics: Running for Office
PY 265 (WS 265): Psychology of Women
SP 230 (WS 230): Women in Culture and Society

## Area II: Advocacy and Action

Choose one:
CM 325: Communication and Social Movements
CM 310SL: Youth Media Advocacy Project
CM 370: Communication and Health Care
EN/SW 351I: Literature and Public Policy
POL 287 (SO 287): Introduction to Public Policy
SW 226SL: Networking in the Community
SW 303: Social Welfare Policy

## Area III: Social Justice Issues

Choose One:
BSM 413: Business Ethics and Social Responsibility
CM 316 (S0 3016I): Greed and Violence in American Society
POL 228: Gender, Law, and Public Policy
PY 340: Social Psychology
SW 201: Introduction to Social Welfare
SW 214 (SO 214): Human Behavior and the Social Environment
SW 216 (SO 216): Community Organization and Praxis
SW 270 (PY 270, SO 270): Cultural Awareness and Human Services
SO 260: Urban Community and Politics

While the above courses help students master the concepts and skills related to leadership and social change, the Capstone Experience for this minor requires students to put their learning into practice. In the Capstone, students are required to complete a research project or internship, and present their work in writing and with a formal presentation.

Finally, if a student is majoring in one of the following programs: Accounting, Business Management, Communication and Media, Corporate Communication, Criminal Justice, Forensic Accounting, Human Resource Management and Technology, Management in Health Sciences, Political Science, Psychology, Sociology and Social Work, he/she can only count six credits (two courses) in both the major and minor. The student must earn a C grade or better in all courses for the minor. Furthermore, at least one (1) of minor courses (in addition to the Capstone) must be at the 300 or 400 level.

## COLLEGE OF LEADERSHIP AND SOCIAL CHANGE

## COURSE DESCRIPTIONS

## ACCOUNTING

## ACC 105 Principles of Accounting I

An introduction to the basic concepts of accounting, emphasizing the accounting cycle; principles and concepts governing the recording and reporting of accounting data; journal entries including adjusting and closing entries; trial balances; and financial statements.
Accounting for assets is covered in detail. The focus of this course is on sole proprietorships. 3 credits

## ACC 106 Principles of Accounting II

A continuation of the concepts introduced in Principles of Accounting I with emphasis on liabilities; equity of a corporate form of business organization; cash flow statement; and analysis of financial statements. 3 credits PREREQUISITE: ACC 105.

## ACC 205 Accounting Information Systems

An introduction to accounting software packages and accounting information systems. ACC 105 and ACC 106 focus on a manual accounting cycle, with reference to the computerized accounting cycle. This course focuses on accounting information systems and software packages, specifically QuickBooks, while reinforcing the accounting concepts and principles covered in ACC 105 and ACC 106. 3 credits PREREQUISITE: ACC 106.

## ACC 305 Intermediate Accounting I

A detailed examination of the component elements of the balance sheet, income statement, and statement of cash flow. Other topics include the environment and theoretical structure of financial accounting, income measurement, profitability analysis, and financial statement analysis. 3 credits PREREQUISITE: ACC 106.

## ACC 306 Intermediate Accounting II

A continuation of the studies undertaken in ACC 305 with emphasis on the asset side of the balance sheet. Topics include: cash, receivables, inventories, property, plant and equipment, investments, and time value of money. 3 credits PREREQUISITE: ACC 305.

## ACC 307 Managerial Cost Accounting

An analysis of the planning and control of costs in the manufacturing and service environment. Topics covered include cost terminology; planning and control techniques; computation of material, labor, and overhead costs and variances; and the preparation of cost reports. Job order costing, process costing, and standard costs are covered in detail. 3 credits PREREQUISITE: ACC 106.

ACC 308 Intermediate Accounting III
A continuation of the studies undertaken in ACC 305 and ACC 306, with emphasis on concepts and procedures used to account for liabilities and equity. Topics include: current liabilities, contingencies, bonds and long-term notes, leases, pensions and other postretirement benefit plans, shareholders' equity, share-based compensation, and earnings per share. 3 credits PREREQUISITE: ACC 306.

## ACC 311 Personal Federal Taxation

An examination of the impact of the Federal Income Tax system on individuals. The structure of the Federal Income Tax system is studied as it relates to the preparation of individual tax returns. Topics covered include income, deductions, tax rates, tax credits, personal exemptions, and tax calculation. 3 credits PREREQUISITE: ACC 106.

## ACC 312 Corporate/Partnership Taxation

A study of the federal income tax structure and the concept of taxable income as it relates to partnerships and corporations. Topics covered include gross income determination, business deductions, book to tax differences, and flow-through entities. 3 credits
PREREQUISITE: ACC 306.

## ACC 405 Advanced Accounting I

An introduction to business combinations and accounting for consolidations under the purchase method. Topics covered include consolidated statements, intercompany transactions, IFRS, pensions, segment reporting, and accounting for partnerships. 3 credits PREREQUISITE: ACC 308.

## ACC 406 Advanced Accounting II

A study of advanced accounting topics including foreign exchange transactions, not-for-profit organizations, state and local governments, business valuations and economic damages. 3 credits PREREQUISITE: ACC 308.

## ACC 407 Auditing

An examination of the auditing function including the standards and procedures used by auditors in their examination of financial statements for the purpose of rendering an opinion on them. Topics covered include the evaluation of internal control, design of the audit program, statistical sampling, and EDP auditing. 3 credits PREREQUISITE: ACC 308.

## ACC 413 Business Ethics and Social Responsibility

 An analysis of the role of business in society. Topics include the role of business within the community, the relationship of business with government, and the regulatory environment. The issues studied will involve both market and non-market decisions which have social, political, and ethical ramifications. Also, the effect of values andcultural norms on managerial decision-making and how this relates to managers facing a global environment and diverse workforce will be analyzed. 3 credits PREREQUISITE: BSM 103.

## ACC 460 Internship/Practicum/Research Experience

 An internship/practicum is an opportunity for students to apply concepts learned in accounting courses. The student must meet departmental and University requirements for participation. The internship/practicum allows the student to experience working in a field of interest for future employment. The research experience affords the student an opportunity to work with a faculty member to perform in-depth research in accounting. Terms of the research agreement are negotiated with the participating faculty member. Junior or senior status is required. 1-3 credits
## FORENSIC ACCOUNTING

## ACF 331 Fraud Prevention and Ethics

An introduction to criminology/understanding human behavior, theories of crime causation, white-collar crime, organizational crime, occupational crime, fraud prevention programs, and punishment and the criminal justice system. The ethics portion covers current professional and ethical issues facing the fraud examiner, and the Association of Fraud Examiners (ACFE) code of ethics. 3 credits

## ACF 332 The Law and Fraud

A study of the statutes and common law principles involved in prosecuting fraud through both criminal and civil systems, as well as the legal pitfalls one may encounter in conducting an investigation. The course includes an overview of the United States legal system, laws related to fraud, individual rights during an examination, criminal prosecution for fraud, the civil justice system, basic rules of evidence, and testifying as an expert witness, as well as the Federal Rules of Civil and Criminal Procedure and the Federal Rules of Evidence. 3 credits

## ACF 333 Fraud Investigation Techniques

A study of the tools and techniques necessary to develop information and evidence when conducting a fraud examination and identifying the perpetrators. It covers how to gather evidence through the examination of documents, interview theory and application, covert operations, sources of information, accessing online information, tracing illicit transactions, and reporting standards. 3 credits PREREQUISITE: ACC 306.

## ACF 440 Fraud Examination

A study covering occupational fraud and abuse including asset misappropriation, corruption, and fraudulent statements. The course provides an understanding of fraud examination methodology and sets forth the schemes used by executives, managers, and employees to commit fraud against their organizations. It provides an analysis and taxonomy of various kinds of frauds and includes cases that illustrate and help the student understand each type of fraud. Based
on extensive empirical research in forensic accounting, the course aids the student in identifying exposure to loss and appropriate prevention, detection, and investigation approaches.
3 credits PREREQUISITE: ACC 306.

## BUSINESS MANAGEMENT

## BSM 103 Introduction to Business and Management

An introductory course dealing with today's global business environment and management principles. Overview topics include types of business organizations, their structures, dynamics, administration, and work distribution functions such as directing, controlling and staffing, and the roles of women in management. The course culminates in the development of a complete business plan as a major project. 3 credits

## BSM 105 (ACC 105) Principles of Accounting I

An introduction to the basic concepts of accounting, emphasizing the accounting cycle; principles and concepts governing the recording and reporting of accounting data; journal entries including adjusting and closing entries; trial balances; and financial statements. Accounting for assets is covered in detail. The focus of this course is on sole proprietorships. 3 credits

## BSM 106 (ACC 106) Principles of Accounting II

A continuation of the concepts introduced in Principles of Accounting I with emphasis on liabilities; equity of a corporate form of business organization; and analysis of financial statements. 3 credits PREREQUISITE: BSM 105.

## BSM 202 Business Communication

A theoretical and practical application of communication principles related to business. Emphasis is given to written expression in accomplishing human relations' objectives necessary for success in working with and influencing other persons. The principles studied in this course are derived from cases involving the writing of business letters, reports, and memoranda. The job-finding process, including letters of application, resumes, and interviews, receives special emphasis. Electronic and telephone communications are covered. 3 credits PREREQUISITES: CC 100 OR SKW 101, CC 101 OR SKC 101 AND BSM 103.

BSM 203 Global Management and Organizational Behavior
A continued study of domestic and global management principles and the managerial application of the behavioral sciences as related to modern organizations. Students will explore the dynamics of interpersonal relations for individual and group productivity, motivation, organizational design, leadership effectiveness, and the management of diverse groups. Students will also critically examine research processes related to behavioral science in organizations.
3 credits FULFILLS GLOBAL REQUIREMENT. PREREQUISITE: BSM 103.

## BSM 204 Introduction to Health Care Management

This is an introduction to management in health services. This course will integrate the concepts taught in business management with those in health services. This course will also examine relevant legislation including HIPPA. 3 credits
PREREQUISITES: BSM 103 AND BSM 226.

## BSM 226 Human Resource Management

An introduction to the basics of human resource management. The student will analyze the functions of human resource planning, employment planning, equal employment opportunity, workplace diversity, recruitment, selection, appraisal, development, compensation, employee relations, and labor relations within the context of organizational objectives and the legal environment. 3 credits

## BSM 231 Training and Development

A study of training and development strategies in a variety of professional contexts. The student will examine the role of learning and employee development as a function of human resource management, assessment of training needs, concepts in learning theory, issues in retention and transfer of learning, methods of training, and evaluation of training. Special topics include managerial training, technical training, literacy training, diversity training, and sales training. 3 credits PREREQUISITES: BSM 103 AND BSM 226.

## BSM 301 Principles of Marketing

An introductory study of the principles and functions of marketing. Topics include product development, market research, channels of distribution, and pricing and promotion. Students will analyze cases dealing with current marketing successes and failures.
3 credits PREREQUISITE: BSM 103.

## BSM 302SL Women as Managers

An examination of the problems encountered by women in or aspiring to managerial/leadership positions. This class will complete analyses of organizational, societal, political, and economic obstacles to career development. Emphasis will be placed upon the behavioral aspects of attaining management positions and functioning effectively as managers. Historical data will be integrated. 3 credits
FULFILLS SERVICE-LEARNING REQUIREMENT.

## BSM 304 Principles of Finance

An introductory study of financial management of business organizations. Topics include a firm's environment, financial statements, financial analysis and planning, short-term financial decisions, long-term financial concepts, capital structure and dividend policy, sources of long-term financing, expansion and failure of business entities, and the stock market. 3 credits

## BSM 305 Concepts in Health Care Finance

An overview of the essential elements of health care finance processes and financial management concepts. Topics will include billing and coding for services provided, financial environment of health care organizations, legal and regulatory influences on health care, revenue from health care services, managed care organizations, financial reporting, and analyses processes in different health care
entities. 3 credits

## BSM 306 Financial Management for Health Care Professionals

A concentration in the financial management aspects of health care organizations. This course will cover the following topics for students interested in the health care administration arena: strategic financial planning concepts and processes, costing processes in health care organizations, control functions of health care managers, capital project analysis, consolidations and mergers in health care organizations, capital formation, and cash management. 3 credits

## BSM 307 Internship Theory and Application

The purpose of this internship theory course is to learn to identify opportunities to apply tools and strategies learned in other business courses. The student and instructor will explore internship opportunities that relate to career goals. The student will also learn to respond to obstacles and opportunities in the work environment and adapt to unexpected events such as changes in work proceses or customer demands. Continuous learning, responsibility, commitment, and flexibility will be stressed. 1 credit

## BSM 328 Compensation

A study of the challenges that organizations must meet in designing and administering a compensation plan that justly and fairly rewards all employees while serving the best interests of the company. The student will analyze the reward systems in terms of both monetary and non-monetary considerations within both union and nonunion settings. Special topics include the glass ceiling concept and comparable worth. 3 credits PREREQUISITES: BSM 103 AND BSM 226.

## BSM 329 Fair Employment Practices

A study of federal, state, and local laws involving fair employment, equal pay, and comparable job worth. Emphasis on the legal aspects of equal employment opportunity, court decisions, and administrative agencies' rules and guidelines. Concepts are examined through the case method. 3 credits

## BSM 333 Recruitment and Selection

An examination of the importance of recruitment and selection as integral functions of the human resource system. Program development and related fair employment practices will be addressed. Other topics include: predictors and measurement of job performance, job analysis, and evaluation of selection criteria. Special emphasis will be placed on the development of interviewing skills. 3 credits PREREQUISITES: BSM 103 AND BSM 226.

## BSM 401 Legal Aspects of Business

An introduction to the legal principles, obligations, and rights related to the conduct of business and industry. Topics include contracts, agency, sales, negotiable instruments, and learning to respond to obstacles and opportunities in the work environment and adapt to unexpected events such as changes in work processes or customer demands. This course also includes a study of the conduct of business as it relates to equal employment, consumer protection, and occupational safety. 3 credits

## BSM 404 Consumer Behavior

A study of human behavior as it affects buying decisions. Topics include perception, learning, motivation, social and cultural factors, and comprehensive models of buyer behavior. Also included are selected applications involving opinion leadership, brand loyalty, reference groups, and marketing communications as well as applications to nonprofit marketing. 3 credits
PREREQUISITES: BSM 103 AND BSM 301.

## BSM 408 Labor Relations

A study of the development and growth of the labor movement including social movements and implications and evolution of the legal framework for collective bargaining in the private and public sectors. Topics include preparation for bargaining and costing of labor contracts, bargaining power, negotiations, impasses, the role of women in labor movements, and the future of labor-management relations. 3 credits

## BSM 410 Corporate Strategic Planning and Policy

A study of effective organizational planning which includes an understanding and application of strategic planning processes and how they translate to tactical and operational endeavors. Students will examine several strategic planning models and apply concepts learned in an organizational case study. Also discussed is the importance of environmental monitoring, teamwork, corporate culture, and dissemination of information. The course will culminate in the team writing of an actual strategic plan. 3 credits
PREREQUISITE: BSM 103.

## BSM 411 Collective Bargaining

A history of labor relations and the collective bargaining process in the United States. The course focuses on contract language and the negotiation and writing of a contract. 3 credits
PREREQUISITES: BSM 103, BSM 226, AND BSM 408.

## BSM 413 Business Ethics and Social Responsibility

An analysis of the role of business in society. Topics include the role of business within the community, the relationship of business with government, and the regulatory environment. The issues studied will involve both market and non-market decisions which have social, political, and ethical ramifications. Also, the effect of values and cultural norms on managerial decision-making and how this relates to managers facing a global environment and diverse workforce will be analyzed. 3 credits PREREQUISITE: BSM 103.

## BSM 416 Creative and Innovative Management

An introduction to differentiating creativity and innovation from both an individual and organizational perspective by integrating this knowledge into the real work-time situation. Students will demonstrate and critique techniques used to generate new ideas and overcome both individual and group creative problem solving.
Students will analyze methodologies for creative strategy usage and options which foster a positive climate. 3 credits
PREREQUISITE: BSM 103.

## BSM 419 Project Management

A course that builds on basic knowledge of management functions, particularly planning at the strategic, tactical, and operational levels. The course focuses on project accomplishment. Students will learn to identify, allocate, and coordinate human, financial, and technical resources to accomplish organizational goals and objectives. Communication and schedule adherence are essential themes throughout the course. Students will be asked to identify an actual work project and complete both a project analysis and a project outline using MS Project as the final assignments in the course. 3 credits PREREQUISITE: BSM 103.

## BSM 460 Internship/Practicum/Research Experience

An internship/practicum is an opportunity for students to apply concepts learned in business courses. The student must meet departmental and University requirements for participation. The internship/practicum allows the student to experience working in a field of interest for future employment. The research experience affords the student an opportunity to work with a Management Department faculty member to perform in-depth research in business areas of interest. Terms of the research agreement are negotiated with the participating faculty member. Junior or senior status is required. 1-3 credits

## BSM 461 Special Topics

An upper level management course designed to provide management majors the opportunity to study topics related to their required studies. In-depth approaches include independent research, review of scholarly publications, and discussion of current global events. Future topics under consideration include European Union, global technology, international ethics, and nonprofit management.
3 credits

## COMMUNICATION

## CM 104 Mass Media and Society

An introduction to the study of the mass communication process and the various industries that constitute the mass media in our society. This course examines the development of each of the major mass media; the social and economic status of each medium today; the function of news, advertising, and public relations; and some basic concepts in communication law and ethics. 3 credits
FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## CM 120 Interpersonal Communication

An examination of communication theory and research as it applies to the creation, maintenance, or deterioration of interpersonal relationships. Topics include the creation and negotiation of meaning,
identity development, social diversity and cultural influences, verbal/ nonverbal messages, perception, conflict, power, self-disclosure, and interaction patterns in friendships, families, and work relationships. The course combines theory application and experiential skill development. 3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## CM 180 (EN 180) Journalism Practicum

Students practice newswriting, editing, and crafting other journalistic pieces for the student newspaper. This course provides hands-on experience in all aspects of production of a student newspaper, including design, layout, and editorial practices.
1 credit; may be repeated.

## CM 200 Communication Seminar

An introduction to the history and current issues in the study of communication and an exploration of careers in this field. Required of all communication majors. Should be taken at beginning of sophomore year (or upon entry to the major). 1 credit

## CM 210 Persuasion

An examination of a variety of persuasive theories that are used by individuals, organizations, advertisers, media, governments, and other institutions to influence thinking and behavior. Students investigate elements of persuasion, and look at how it functions within a variety of private and public contexts. 3 credits PREREQUISITE: CC 100 OR SKW 101

## CM 225 Political Communication

An examination of various theories and practices of political communication and the range of contexts within which it occurs. Students explore communication employed by government and political leaders, mass media, lobbyists and interest groups, and individual citizens and citizen publics. The course allows students to analyze numerous examples of political communication such as blogs, speeches, debates, campaign advertisements, political protests, and other communication vehicles. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI REQUIREMENT.

## CM 232 Organizational Communication

An examination of theory and research as it applies to communication in various types of organizations. Topics include organizational cultures, communication styles associated with different management approaches, gendered communication styles, power and influence, conflict management, and an analysis of the effects of technology on organizational communication. Students apply these theoretical foundations to the creation and analysis of messages. 3 credits PREREQUISITE: CC 100 OR SKW 101.

## CM 236 (WS 236) Gender Differences in Communication

An examination of gender differences in communication that are sustained by cultures. Students will explore how gender roles are created and perpetuated. They will then examine the ways our interpersonal and social interactions, including our experience with the mass media, influence our probability of success, satisfaction,
and self-esteem. In assignments and discussion, students will link theory and research on gender and communication with their personal lives. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## CM 240 Advertising

An introduction to the history, principles, and practice of effective advertising. Students develop strategies for successful campaigns using various media and critically evaluate the ethical, economic, and persuasive effects of advertising. 3 credits

## CM 242 Public Relations

An examination of the principles and practice of effective public relations. Students learn to shape information to meet the goals of organizations in reaching diverse publics. Ethical, social, and economic issues are critically examined. 3 credits
PREREQUISITE: CC 101 OR SKC 101.

## CM 260 (EN 260) Writing for Media

An examination of the principles and practice of writing for media.
Students gain experience in writing tightly organized, concise,
"hard news" stories. Students will learn interviewing and basic investigative skills, and they will practice writing for print and online media sources. 3 credits PREREQUISITE: CC 100 OR SKC 101.

## CM 290 Professional Presentations and Interviewing

An exploration of the knowledge and skills for effective communication in contemporary organizations at three distinct levels: public presentations, interviews, and group meetings. Students also develop professional-level skills in the creation and use of visuals for a variety of presentation types. 3 credits PREREQUISITES: CC 101 OR SKC 101.

## CM 300 Leadership and Team Building

An examination of leadership as the process of managing meanings and influencing others. Students examine the mutually influential leader-follower relationship, competing theories and perspectives of leadership, the process of creating compelling vision, the language of leadership, charisma and communication, and strategies by which leaders motivate, influence, persuade, advocate, address crises, and create change. Also explores team building, the impact of gender/ ethnic diversity on leadership, and the role of ethics in leadership. Case studies, discussions, and experiential learning are employed. 3 credits PREREQUISITE: CM 232.

## CM 307 (AR 307) Media Criticism

An introduction to the aesthetic and social analysis of mass media, film, and television through critical writing and discussion.
3 credits MAY FULFILL LINKED REQUIREMENT WITH HS 304L WHEN OFFERED AS CM 307L. PREREQUISITES: CC 100 AND CC 101 OR SKW 101 AND SKC 101.

## CM/SW 310SL Youth Media Advocacy Project (YMAP)

The Youth Media Advocacy project intends to provide high school students with the knowledge, skills, and support to use the media to influence policy decisions that impact their lives. Carlow University
students meet with high school students to facilitate their work on a media advocacy campaign related to improving their education. Students will garner earned media coverage, create and place high quality paid media such as print ads and radio spots, and distribute media via the Internet. An ultimate goal of the project is to have youth voices heard by the Pittsburgh media and community leaders in order to create change in the schools. 3 credits FULFILLS SERVICELEARNING REQUIREMENT.

## CM 320 Conflict Management

An investigation of theories, research, principles, and practices of conflict management. Topics include: the nature and functions of conflict; types and metaphors; conflict analysis and assessment frameworks; patterns of behavior, styles, strategies, and tactics used in productive and destructive conflicts; facework; power influences; and outcomes such as violence and forgiveness. In addition, thirdparty interventions including mediation are introduced. The course combines theory application and experiential skill development.
3 credits

## CM 325 Communication and Social Movements

A critical rhetorical examination of historical and contemporary social movements that combines political, sociological, and communication approaches to explain social movement activity. Students are presented with a range of theoretical tools, perspectives, vocabularies, and concepts, and then shown those concepts in action with case studies of specific movements. This course examines movements such as the women's rights, civil rights, anti-war, and environmental movements. 3 credits
PREREQUISITE: CC 100 AND CC 101 OR SKW 101 AND SKC 101.

## CM 330 (EN 330) Feature Writing

This course examines the principles and practices of feature writing. Students gain experience in interviews, personality profiles, narratives, sidebars, and other forms of "soft news" pieces for publication in print or online. 3 credits
PREREQUISITE: CC 100 OR SKW 101.

## CM 350I (SW 350I) Gender, Race, and Class: Media and Social Change

An analysis of the role the mass media play in developing, sustaining, and challenging stereotypes. Students will explore the impact that media stereotypes have on public policy decisions as they affect groups based on gender, race, and social class. This course is team taught as an interdisciplinary course that integrates perspectives from communication and social work. 3 credits PREREQUISITES: CC 100 AND CC 101 OR SKW 101 AND SKC 101. FULFILLS INTERDISCIPLINARY REQUIREMENT.

## CM 360 Digital Storytelling

The purpose of this course is to build on skills introduced in CM 260 Writing for Media and to introduce and develop your knowledge and skills in digital storytelling. Students are introduced to the basics of storytelling (narrative), e-publishing, audio and video production as well as the strategic choices involved in the creation and online
distribution of digital messages. Ultimately, this course will prepare you to become proficient in digital forms of communication that are essential for 21st Century communication practitioners. 3 credits PREREQUISITE: CM 260.

## CM $370 \quad$ Communication and Health Care

An investigation of the critical role of communication in the diagnosis, treatment, and prevention of illness and the promotion of wellness. Designed for any consumer of health care and/or potential employees in widely diverse health care industry contexts. Topics include: the influence of culturally diverse views of health, illness, and healing on communication patterns; communication strategies for designing, implementing, and evaluating persuasive health campaigns; impact of gender, race, class, and age on health communication; impact of media (news, entertainment, advertising) on health images and awareness; health advocacy methods to empower individual citizens and communities; patient/consumer-provider interactions, and ethical issues in health communication. 3 credits
PREREQUISITE: CC 100 AND CC 101 OR SKW 101 AND SKC 101.

## CM $380 \quad$ Special Topics in Communication

An analysis of selected topics in communication. The course is organized in any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. May be repeated for credit as content changes.

## Credits vary

## CM 400 Independent Study

An exploration of an area of study in communication which is not already offered as a course. Students design the course with the consent of a faculty member. Credits vary PREREQUISITE: JR./SR. STANDING AND PERMISSION REQUIRED PRIOR TO REGISTRATION.

## CM 405 Internship

An on-the-job placement experience with reflection and analysis. Provides students the opportunity to explore, define, and refine areas of interest, as well as apply communication theory and skills in the workplace context. Credits vary; may be repeated. PREREQUISITE: JR./ SR. STANDING AND PERMISSION REQUIRED PRIOR TO REGISTRATION.

## CM 421 (SO 421, SW 421) Research Methods for Social Sciences I

An interdisciplinary first course in social research methods for students majoring in a social science. Students learn the fundamentals of research design and gain an understanding of a variety of research methods. As a final project, students develop a research proposal. 3 credits PREREQUISITES: CC 100, CC 101, CC 102, OR SKW 101, SKC 101, AND SKQ 101.

## CM 450 Senior Seminar

A reflection on key areas of communication knowledge and practices. Students develop and present a final work product that demonstrates the knowledge and skills that they have acquired in their communication courses as well as a reflection on how communication study relates to the liberal arts and to contemporary issues. 1 credit PREREQUISITE: SENIOR COMMUNICATION MAJORS ONLY.

## CM 457 Communication Ethics

An examination of major ethical theories and principles pertaining to interpersonal, organizational, and mass communication. Students focus on a variety of ethical issues and case studies as a method for refining critical thinking and oral/written argumentation skills. Communication ethics literacy, dialogue for understanding, and tolerance in times of disagreement are emphasized. 3 credits PREREQUISITE: JR./SR. STANDING OR PERMISSION OF THE DEPARTMENT CHAIR.

## ECONOMICS

## EO 101 Microeconomics

A study of theories concerning the behavior of individuals, households, firms, and industries and their patterns in regard to production and consumption. Examines the influence of the pricing system on the production and distribution of goods and services. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI AND GLOBAL REQUIREMENTS.

## EO 102 Macroeconomics

A study of the basic theory of the determination of output, prices, and employment in the United States' economic system. The role of monetary and fiscal policies and practices is analyzed. This course also compares other economic systems with that of the United States. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI AND GLOBAL REQUIREMENTS.

## EO 103 Principles of Economics

A study of theories concerning the behavior of individuals, households, firms, and industries and their patterns in regard to production and consumption. Examines the influence of the pricing system on the production and distribution of goods and services. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI AND GLOBAL REQUIREMENTS.

HUMAN RESOURCES

## HRIS 101 Human Resource Information Systems Management I

An introductory course to human resource information systems management (HRIS). The student will be given an overview of all functional areas in an HRIS system and become familiar with the most widely used HR management software in the marketplace. Students
will learn how each area of an HRIS system interrelates with others and how crucial proper design and management are to the success of the system. Students will experience the design and planning phases of an HRIS system with the aid of Microsoft Project.
3 credits PREREQUISITE: BSM 226.

## HRIS 202 Human Resource Information Systems Management II

A course designed to complement and build upon HRIS Management I. The student will begin implementing the plan created in the previous course. The focus will be on the recruitment, selection/ assessment, and employee tracking areas of an HRIS system. The student will learn how to customize these areas to "fit" an organizational environment. Once implementation is complete, information management strategies will be discussed and students will identify a strategy that addresses the needs of an organization. 3 credits PREREQUISITES: BSM 226 AND HRIS 101.

## INFORMATION TECHNOLOGY MANAGEMENT

## IT 117 Microsoft Excel—Latest Version

A hands-on introductory course that will provide the student with the basic skills and knowledge to create/modify Excel worksheets in order to meet the fundamental needs of an organization. The student will learn how to perform basic formulas and create a Web page using Excel. Key concepts and terminology will be discussed in order to reinforce the hands-on practice. Hands-on instruction, practice, and assignments are given to assess the student's technological skills. This course is designed for students in all majors to enhance their technology skills and knowledge. 1 credit

## IT 143 Microsoft Access—Latest Version

A hands-on introductory course that will provide the student with fundamental knowledge and understanding of Microsoft Access. The student will learn how to perform basic file management operations within the relational database of Microsoft Access. Key concepts and terminology will be discussed in order to reinforce the hands-on practice. Hands-on instruction, practice, and assignments are given to assess the student's technological skills. This course is designed for students in all majors to enhance their technology skills and knowledge but is particularly important for students interested in IT 242 and the database management track. 1 credit

## IT 150 Information Technology I

A first course in information systems that introduces students to the fundamental concepts related to the use of IT in organizations from a managerial perspective. Students will learn to recognize the strategic value of IT and will become familiar with the different ways in which IT is used in organizations (e.g. enterprise systems, business intelligence). Students will also learn IT skills to improve their personal productivity. The course has been designed to also
include hands-on activities, mainly in the areas of databases, Web design, and e-commerce. Students will prepare a business case to propose and justify an IT initiative in a real organization. This course has been designed as a stand-alone portal course in IT for majors in all disciplines. 3 credits PREREQUISITES: CC 100 OR SKW 101, CC 101 OR SKC 101, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## IT 150SL Information Technology I

A first course in information systems that introduces students to the fundamental concepts related to the use of IT in organizations from a managerial perspective. Students will learn to recognize the strategic value of IT and will become familiar with the different ways in which IT is used in organizations (e.g. enterprise systems, business intelligence). Students will also learn IT skills to improve their personal productivity. The course has been designed to also include hands-on activities, mainly in the areas of databases, Web design, and e-commerce. Students will prepare a business case to propose and justify an IT initiative in a real organization. This course has been designed as a stand-alone portal course in IT for majors in all disciplines. 3 credits PREREQUISITES: CC 100 OR SKW 101, CC 101 OR SKC 101, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## IT 151 Information Technology II

A course designed to provide students with essential theory and hands-on practical skills in the areas of computer hardware, software, and networking. Students will have the opportunity to install, configure, and troubleshoot computers and the networks that tie them together. Students will also become familiar with additional current hot topics in the IT field. As computer technology continues to expand into all areas of our society, the need to understand this technology has become essential. 3 credits PREREQUISITE: IT 150.

## IT 200 Excel Applications in Accounting and Business

A hands-on progressive course that provides the student with basic to advanced skills to create/modify Excel worksheets in order to meet the fundamental needs of an organization. Students will learn how to perform basic, intermediate and advanced formulas and create a webpage using Excel. Key concepts and terminology will reinforce hands on practice, while hands-on instruction, practice and assignments are used to assess technological skills. This course is designed for students in all majors seeking to enhance technology skills and knowledge. 3 credits

## IT 205 Foundations of Programming

An introduction to the concepts underlying the development of computer programs. Students will utilize an introductory programming language to learn the foundational concepts of programming while learning practical ways to empower their use of everyday applications. This course can be taken alone by any students interested in learning about programming and advancing in their expertise of Microsoft applications. $\mathbf{3}$ credits

IT 235 Web Design
An introduction to Web page creation using Web design software and HTML coding techniques. Topics include Web design theory, Web design terms and techniques, successful website plans, review of HTML coding, tables, text formatting, image formatting, templates and cascading style sheets, and multimedia content. 3 credits PREREQUISITES: CC 100 AND CC 101.

## IT 242 Database Management Systems

An overview of database management theory and practice. Students will learn the fundamentals of database application development and how database technologies can be used for competitive advantage in organizations. Topics to be covered will include database theory, normalization, entity relationships, and SQL queries. MS Access will be used for in-class demonstrations and projects. 3 credits PREREQUISITES: IT 150 AND IT 143 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## IT 2901 (POL 290I) Politics and Technology

A course that will analyze the new opportunities and challenges that arise at the intersection between politics and technology. In addition to the discussion of the individuals (or stakeholders) to be affected by this interplay between politics and technology, topics will include regulatory aspects in areas such as e-government, data mining, data privacy, telecommunications, and litigation. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

## IT 333 Advanced Adobe Dreamweaver

A course that deepens students' understanding of the advanced features of the latest version of Adobe Dreamweaver. Students will gain a deeper understanding of the inner-workings of Dreamweaver, collaboration through Dreamweaver, integration of other technologies into Dreamweaver, and critical design guidelines and requirements. Besides providing students with a deeper understanding of the Dreamweaver software, this course will also cover the major sections of the Adobe Dreamweaver Expert Certification examination. This certification is a well-respected and internationally-recognized credential that demonstrates proficiency in the Dreamweaver software and will set students apart from their competition. 3 credits PREREQUISITE: IT 235.

## IT 342 Advanced Database Systems

A continuation of IT 242 using a server-based DBMS and SQL and revisiting many topics of IT 242 in more depth. Topics: SQL syntax, data retrieval, data definition, security and access rules, and views; data models and enhanced ER diagrams; normalization theory; and introduction to data warehouses, distributed databases, replication, and security. MS SQL server will be used as the DBMS software. Introduction to programming interfaces to databases, ODBD, JDBC, XML. This course is aimed mainly at IT majors interested in database specializations. 3 credits PREREQUISITE: IT 242.

## IT 355 Documentation in Technology

An introduction to the theory and practice of documentation, including project development, manual organization, and refinement of technical writing skills for information technology. Project includes publishing a draft document, designing online help techniques, developing reference materials, and participating in program design teamwork. 3 credits PREREQUISITE: IT 150 OR 150 SL

## IT 372 Information Security

An overview of information security topics from a managerial perspective. Topics include hacker techniques, legal issues of information security including Pennsylvania's data breach security act, typical corporate security and privacy policies, firewalls, virtual private networks, encryption, identity theft, intrusion protection, desktop protection, windows security, e-commerce, and wireless security. The concepts within this course are beneficial to all students who intend to work with technology or manage technology within an organization. $\mathbf{3}$ credits PREREQUISITE: IT 150.

## IT 382 Systems Analysis and Design

An introductory course on the efficient and effective assessment, analysis, and design of information systems. The objective of this course is to simultaneously develop planning, analysis and design skills and knowledge about strategies for applying those skills. Class discussion and exercises will focus on the challenges that project managers, business analysts, and software developers face when analyzing, designing, and implementing systems in organizations. Different methods will be used to develop students' understanding of the material. However, the emphasis throughout the course is not on technical (i.e. programming) aspects of systems analysis and design. Students will be expected to read and think about all assigned material in advance of class, as the purpose of classes will be to discuss the material, expose different points of view, and develop the students' analytical skills. 3 credits PREREQUISITE: IT 242.

## IT 400 Independent Study

A study of specific information technology topics chosen according to students' interest with the approval and assistance of the faculty. 3 credits

## IT 460 Internship/Practicum/Research Experience

An internship/practicum is an opportunity for students to apply concepts learned in business courses. The student must meet departmental and University requirements for participation. The internship/practicum allows the student to experience working in a field of interest for future employment. The research experience affords the student an opportunity to work with a Management Department faculty member to perform in-depth research in business areas of interest. Terms of the research agreement are negotiated with the participating faculty member. Junior or senior status is required. 1-3 credits

## PITTSBURGH FILMMAKERS (PF) COURSES

Selected courses in film, video, and photography are scheduled through the Communication Department. The courses are taken off campus at the Pittsburgh Filmmakers Institute. Requires approval and additional tuition fee.

## POLITICAL SCIENCE

## POL 101 Introduction to American Government

An introduction to the components of the American political system. Attention is given to: political institutions their structures and roles; the exercise of power; government performance and results; the impact of political decisions on society; and the development of political attitudes. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI REQUIREMENT.

## POL 105 Topics in Global Living and Learning Community; Women Around the Globe

This course will focus on a special topic connecting students to global issues within a local context. Students registered in this course will also live on the Global Living and Learning Community located in the residence hall. This residence hall floor is a female floor but male residents are permitted and encouraged to sign up and participate. 1 credits

## POL 106 Topics in Global Living and Learning Community; Conflict Around the Globe

This course will focus on a special topic connecting students to global issues within a local context. Students registered in this course will also live on the Global Living and Learning Community located in the residence hall. This residence hall floor is a female floor but male residents are permitted and encouraged to sign up and participate. 3 credits FULFILLS GLOBAL REQUIREMENT. PREREQUISITE: POL 105

POL 120 (WS 120) Introduction to Leadership and Women An exploration of theories, scholarship, and styles related to leadership behavior and skills. Students will recognize, observe, and appreciate styles of leadership, especially among women. Particular emphasis is given to the contributions and changes women leaders make at all levels of their lives for the good of systems of various sizes. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

POL 180 The History of Political Thought An examination of seminal literature and concepts of Western political philosophy, the continuity and innovation that characterize the Western tradition, as well as its relevance to contemporary political problems. The
consciousness of the student is examined regarding the complexity of political realities and political thinking. The student is encouraged to think more critically about his or her personal identity within the current political parameters. 3 credits

## POL 209 Introduction to Comparative Politics

This course surveys government institutions, practices, and politics and explores the role of government in economic and social affairs in developing as well as advanced industrial countries. The course considers the relationship among capitalism, democracy, and economic development and provides an introduction to the comparative method. Examines cross-national comparison to gain insight into political dynamics. 3 credits FULFILLS GLOBAL REQUIREMENT.

## POL 210 Introduction to International Relations

An overview of international history followed by a careful examination and comparison of competing international relations theories. Important structural processes and issues will be examined, as well as contrasting theoretical approaches and questions. Major concepts include war, peace, globalization, human rights, and international law. 3 credits FULFILLS GLOBAL REQUIREMENT.

POL 220 The Structure of Conflict: Local to Global This course presents an overview of conflict: why we fight and why we are motivated, or not, to seek resolution. The course introduces theories of conflict and examines contested relationships through the framework of culture, gender, power dynamics, and resource allocation. The course integrates a skill-building approach to introduce students to concepts and techniques in the recognition, deconstruction, and resolution of conflict in local and global environments. 3 credits PREREQUISITE: CC 100 OR SKW 101.

## POL 228 (SO 228, WS 228) Gender Law and Public Policy

This course analyzes laws, public policies, and practices that have constructed and regulated gender in the public and private sectors, with special attention to employment and education. It examines the historical constructions of gender as a concept in American society, including how and why this concept was institutionalized publicly and privately in various arenas of the U.S. at different historical junctures. The course will conclude with a study of the progress that has been made in dismantling gendered institutions and the challenges that remain. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT. PREREQUISITE: CC 100 OR SKW 101.

## POL 230 Foundations of American Political Development

This course focuses on the development of America's institutions: Congress, the presidency, and the courts. The study of American political development is concerned with the nature of political change over time, the path by which we reached our present political state, broad patterns in American politics, and the exceptional nature of American politics and political history compared to that of other capitalist democracies. A variety of questions relating to periods of American political and constitutional history or political development are pursued. 3 credits PREREQUISITE: CC 100 OR SKW 101, OR POL 101.

## POL 240 The Politics of Terrorism

An exploration of related topics such as political culture, social culture, religion, and political organizations and their links to "terrorism." This course will explore the concept of terrorism, the use of violence, the dynamics of war, the political economy of former colonial regimes, dependent economies, and how the world's distribution of resources affects state nations. 3 credits FULFILLS GLOBAL REQUIREMENT.

## POL 250 Applied Politics

This course provides experiential learning opportunities for participation in seminars, workshops, conferences, and other special events on topics of interest to the political science and public policy students. Such experiences include, but are not limited to: PLEN seminars, advocacy days, and leadership conferences. Credits vary

## POL 255 (SO 255) Law, Marriage, and Family

A survey of the law of family relations, including the law of marriage and annulment, divorce, legitimacy of children, custody, and adoption. The course reviews the formation, maintenance, and dissolution of the family unit, including custody, support, and property rights involving spouses, partners, and children. 3 credits PREREQUISITE: POL 101 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## POL 260/SO 260 Urban Communities and Politics

An examination of theories about how cities developed and function and the importance of cities in today's world. We consider the development of U.S. urban centers as well as others throughout the world. The course also focuses on social life and social problems within cities. Pittsburgh is used as an example throughout this course. 3 credits PREREQUISITES: POL 101 OR SO 152; CC 100 OR SKW 101.

POL 265 Constitutional Law I: U.S. Government and Powers This course explores major cases and controversies in the interpretation of the U.S. Constitution, Articles I through VI. The course examines the powers and limits of the U.S. Supreme Court and its relationship to other branches (executive and legislative) of the federal government. It considers the federal structure and powers at the national and state levels, with special focus on the question of powers retained by states. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI REQUIREMENT. PREREQUISITE: POL 101 OR PERMISSION FROM THE DEPARTMENT CHAIR; CC 100 OR SKW 101.

## POL 287 (SO 287) Introduction to Public Policy

An analysis of public policy as well as an overview of how citizens identify issues and concerns and influence policy through civic engagement and advocacy efforts. The relationship of public policy legislation to social problems is explored, with attention given to women and other disadvantaged groups. The acquisition of analytical skills necessary to understand, improve, and participate in the policy making process is emphasized. 3 credits FULFILLS ECONOMICS/ POLITICAL SCIENCE LAI REQUIREMENT. PREREQUISITES: POL 101, OR SO 152.

## POL 2901 (IT 2901) Politics and Technology

This course will analyze the new opportunities and challenges that arise at the intersection between politics and technology. In addition to the discussion of the individuals (or stakeholders) to be affected by this interplay between politics and technology, topics will include regulatory aspects in areas such as e-goverment, data mining, data privacy, telecommunications, and litigation. 3 credits FULFILLS INTERDISCIPLINARY REQUIREMENT.

## POL 313I (WS 313I, PH 313I) Women in Politics: Running for Office

An exploration of women's politics and political interest using feminist theories and gender-specific positions that lead to an understanding of what motivates individuals to run for office. Gender-specific concerns and obstacles confronted by women interested in political participation and leadership will be covered. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE AND WOMEN AND GENDER STUDIES LAI AND INTERDISCIPLINARY REQUIREMENTS.

## POL 325 (SO 325) Race, Law, and Public Policy

This course will examine laws and public policies that have been constructed to address issues surrounding race in the areas of education, employment, and housing. It analyzes the historical constructions of race as a concept in American society, including how and why this concept was institutionalized publicly and privately in various arenas of the U.S. at different historical junctures. The course includes an examination of the progress that has been made in dismantling radicalized institutions since the Civil Rights era. 3 credits PREREQUISITES: POL 101 OR SO 152; CC 100 OR SKW 101.

## POL 330 American Political Institutions: Congress, the Presidency, and the U.S. Supreme Court

This course will explore the institutions of American government: Congress, the Presidency, and the Supreme Court. The course is designed to provide an analytical and applied understanding of American institutional structures by requiring students to "think politically" and systemically and strengthening essential skills of political action: effective writing and speaking in the context of the processes of political institutions. 3 credits PREREQUISITE: POL 101, CC 100 OR SKW 101.

## POL 335 Mock Trial and Court Advocacy

This course provides an opportunity to learn firsthand about the work of attorneys in the courtroom, understand the judicial system, sharpen critical thinking, and refine public speaking ability. Students will explore the fundamental process of the adversarial system of justice, including the basic rules of trial procedure and evidence. The course will combine mock trial exercises, demonstrations, and class discussion to enable students to develop the skills of advocacy. 3 credits

POL 336 Mock Trial and Court Advocacy
Course may be repeated. 1-3 credits PREREQUISITE: POL 335.

## POL 350/SO 350 Social Change in America: Decades that Made a Difference

In this course students will identify and study the significant and enduring cultural shifts created by social and political movements began following WWII and culminating in the passage of the Civil Rights Act of 1964. These years and forces that profoundly and permanently transformed American life, institutions and culture include: the civil rights movements, rock and roll, the counter-culture, and the dominance of TV in American popular culture. Students will also examine some of the most salient tensions and conflicts of the post war era: between the demands of security and respect for civil liberties; conformity to social, religious, and political norms and the expression of individuality; increasing wealth and opportunity and the unavailability of these goals, which will be analyzed in the context of sociological theories and practices. 3 credits

## POL 365 Constitutional Law II:

Civil Rights and Civil Liberties
This course builds on the development of the Supreme Court's roles, relationships, and powers by examining the first 10 amendments, with emphasis on the First Amendment freedoms of speech, expression, association, and the clauses with respect to religious freedom. The notion of fair treatment in the justice system is examined through the role of the justices as interpreters of law in American society. 3 credits PREREQUISITES: POL 101, POL 265, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## POL 420/NU 420 Legal, Ethical and Political Issues in Health Care

Focus is on legal, ethical, and political issues in health care. Legal and ethical principles that guide health care practice issues are discussed. Political forces that influence change in contemporary health care are examined. Global differences and their relationship to American health care practice are explored. The student takes an active role in the policy process. 3 credits (3 theory; 0 clinical) FULFILLS GLOBAL REQUIREMENT. PREREQUISITE: COMPLETION OF ALL JUNIOR LEVEL NURSING COURSES.

## POL 450 Internship

This internship is an experience that demonstrates the integration of theory and application in a political or social setting. In addition, this experience introduces students to career choices and advocacy roles. Open to juniors and seniors. Credits vary; may be repeated PREREQUISITES: POL 101, POL 180, POL 230, POL 287 OR PERMISSION FROM THE DEPARTMENT CHAIR.

PSYCHOLOGY

## PY 101 Introduction to Psychology

A survey of the general field of psychology including the fundamental areas of learning, sensation perception, cognition, behavior, motivation, personality, adjustment, and the biological basis of behavior. 3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## PY 122 Lifespan Development

An examination of the patterns of growth, change, and stability in behavior that occur across the human lifespan. Starting with conception, the course explores the biological, psychosocial, and cognitive theories that help us observe and explain human behavior from life's beginnings through the end of life. 3 credits
FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## PY 203 Personality Theory

Analyses of personality theories with emphasis on understanding and improving behavior are presented. Various ways to cope with and learn from stress and how to foster growth are also explored.

## 3 credits

## PY $205 \quad$ Child Psychology

An examination of the basic principles and theories of development from conception to middle childhood. Emphasizes social, emotional, and cognitive development. 3 credits FULFILLS SOCIAL AND
BEHAVIORAL SCIENCES LAI REQUIREMENT.

## PY 206 Adolescent Psychology

A comprehensive investigation of the bio-psycho-social development of the adolescent, with an emphasis on diversity. Major theoretical approaches are presented along with current research. 3 credits

## PY 207 Adult Development

An overview of the various problems and possibilities that emerge in adulthood. Main objectives include acquiring a working knowledge of the research and theories of young adulthood, middle age, and the elder years. Topics such as life cycle transitions in sensation, cognition, memory, intimacy, marital states, sexuality, spirituality, mental health, and death and dying are explored. Emphasis is placed on how to cope and grow from adolescence through adulthood.

## 3 credits

## PY 209 Abnormal Psychology

An overview of psychological disorders. Diagnosis, etiology, and modern treatments are explored. A bio-psycho-social perspective is emphasized with special attention given to the Diagnostic and Statistical Manual of Mental Disorders. 3 credits

## PY 216/EC 206 Child Development: Ages Six to Nine

This course addresses the physical, cognitive, and psychosocial development of children in grades PreK through four. The student is introduced to major concepts and theories of child development and the scholarship and research that inform these concepts and theories. The course is designed to promote connections between one's understanding of child development and how that understanding informs those who work with this age group. 3 credits

PY 218 (SO 218, SW 218) Forensic Treatment and Correction An exploration of interdisciplinary practices within the correctional environment that present serious challenges to health care professionals who work in the correctional system. This course emphasizes a team approach in providing treatment to forensic consumers as well as the general population of a correctional environment. 3 credits.

## PY 219 Preadolescent and Early Adolescent Development

This course addresses the physical, cognitive, and psychosocial development of older school-age children and young teens (i.e., grades four through eight). The student is introduced to major concepts and theories of preadolescent and early adolescent development and the scholarship and research that inform these concepts and theories. The course is designed to promote connections between one's understanding of early adolescent development and how that understanding informs those who work with this age group. 3 credits

## PY 2301 (BIO 2301) Biological Bases of Behavior

Biological Bases presents an in-depth focus on neuroanatomy, the nervous system, and other biological processes relevant to human thought and behavior. Students will learn the structure and function of the nervous and endocrine systems, with a specific focus on how biological systems influence psychological functions and vice versa. Students will become familiar with the terminology and research methods of both biology and psychology, and will be introduced to exciting interdisciplinary neuroscience fields. 3 credits PREREQUISITE: PY 101. FULFILLS SOCIAL AND BEHAVIORAL SCIENCES AND NATURAL SCIENCES LAI AND INTERDISCIPLINARY REQUIREMENTS WHEN TAKEN WITH BIO 231.

## BIO 231 Basic Human Anatomy and Neurobiology Laboratory

A hands-on laboratory course that covers all human body systems (i.e. skeletal, muscular, cardiovascular, respiratory, digestive, renal, and reproductive) with special emphasis placed on the structure and function of the nervous and endocrine systems. This laboratory course, along with the lecture topics covered in BIO 231I provides a basic understanding of the structure and function of the human body. 1 credit FULFILLS NATURAL SCIENCES LAI REQUIREMENT WHEN TAKEN WITH PY 230I.

## PY 265 (WS 265) Psychology of Women

An overview of theories and current research on the psychological nature of women, specifically related to the adult life cycle of women from adolescence through maturity. Adult female life will be examined with particular emphasis on critical periods of development as these developments affect the emotional life of the modern woman. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## PY 270 (SO 270, SW 270) Cultural Awareness and Human Services

An introduction to practical social service process stage approach to ethnic and cultural groups. Given our culturally diverse society, intervention practice approaches have universal application to service specific populations. Drawing on cultures as holistic designs for living, insights and strategies for addressing human needs and concerns from a culturally sensitive perspective will be covered. 3 credits FULFILLS GLOBAL REQUIREMENT. PREREQUISITE: SW 104/104SL OR PERMISSION FROM THE DEPARTMENT CHAIR.

## PY $280 \quad$ Cognitive Psychology

An exploration of the basic concepts and contemporary topics in cognitive psychology. Topics to be covered include perception, attention, pattern recognition, consciousness, memory, the representation of knowledge, language, cognitive development, thinking, and artificial intelligence. Traditionally, cognitive psychologists have studied these topics without full consideration of the biological mechanisms underlying each of these areas. In this course we will also examine the current research from within the area of cognitive neuroscience for a better understanding of the role these biological mechanisms play in cognition. 3 credits

## PY 285 Introduction to Counseling

An introduction to the basic principles of and various approaches toward counseling. Emphasis on supervised role playing and on how to begin to become therapeutically effective. 3 credits
THIS COURSE IS A PREREQUISITE FOR ALL OTHER COUNSELING COURSES-PY 380, PY 382, PY 384, PY 430 AND PY 488

## PY 2861 (EN 286I) The Psychology of Literature

This course explores the connection between psychological concepts and literary texts. Students will examine myths, fairy tales, contemporary fiction, drama, and poetry from literary and psychological perspectives, analyzing parallels between psychoanalytic theory and authors' characters and, at times, authors' lives. This interdisciplinary approach encourages students to discover and articulate how psychology and literature reflect the core concepts that define humanity. 3 credits FULFILLS DISCIPLINARY REQUIREMENT.

## PY $290 \quad$ Elementary Statistics

An introduction to the calculation and interpretation of statistics for the behavioral sciences including measures of central tendency, variability, percentiles, correlation, and such inferential techniques as the t-test, chi-square, and analysis of variance.
4 credits PREREQUISITE: CC 102.

## PY 306 Research Methods

An examination of the scientific method as it is used in psychology research. The course explores the various aspects of the research process (e.g., experimental design, analysis, scientific report writing) and how to critically evaluate research. PY 306 prepares the student to become a knowledgeable consumer of psychological research with the ultimate goal of conducting research in advanced courses. 3 credits PRE- OR COREQUISITE: PY 290.

## PY 308 Psychology of the Exceptional Child

A survey of the psychological development of youngsters with physical, social, mental, and emotional deviations. Emphasis on procedures for social, educational, and psychological adjustment. 3 credits PREREQUISITE: PY 205.

## PY 315 Psychology of the Exceptional Learner: Ages Six to Nine

This course is a general introduction to the characteristics of exceptional learners ages 6 through 9, and their education. Psychological, sociological, and medical aspects of disabilities and giftedness as well as classroom practices will be emphasized. This course is primarily designed for two audiences: individuals preparing to be general educators, and those preparing to be special educators. Given the current laws, guidelines, and trends in education, regular educators must be prepared to understand the special education population and be ready to work with special educators to provide appropriate educational programming for special needs students ages 6 through 9.3 credits

## PY 320 Qualitative Research Methods

An introduction to the application of qualitative research methods commonly used in psychology and related fields. Students will explore the nature of qualitative research, qualitative research designs, methods for collecting qualitative data, analysis of qualitative results, and the presentation of those findings. Students are expected to apply these skills in class as they conduct studies that illustrate qualitative research methods. A primary focus of the course is that students plan and complete research projects using a qualitative methodology appropriate to address a selected research question. 3 credits PREREQUISITE OR COREQUISITE: PY 306 OR SSC 321

## PY 325 Experimental Psychology

An examination of present and historical techniques of experimentation in sensation, perception, learning, and higher functions. Individual discovery of methods. 4 credits PREREQUISITES: PY 290 AND PY 306 OR SSC 321.

## PY 340 Social Psychology

An exploration of the behavior of the individual in the context of multiple social influences and groups (family, school, neighborhood, and society at large). Topics include: social perception and cognition; attitude and attitude change; attraction, affiliation and love; pro-social and antisocial behavior; violence and aggression; prejudice and discrimination; and stereotyping, sex roles, and public opinion. 3 credits

## PY 350 Senior Seminar

This course invites students to explore the breadth and diversity of inquiry within the field of psychology. Content will focus on the history of the discipline as well as an application of current theory today. A substantial focus will be on students' career goals and interests, as students engage in activities designed to help students explore information on careers and graduate school. A over-arching goal of the course is to familiarize students with past and current trends in the field so that students can make informed decisions about their own career paths. 3 credits

## PY 352 Forensic Psychology

An introduction to the science or act of attempting to determine criminal culpability based on an individual's current level of psychological functioning at the time of an offense. It also focuses on an individual's psychological functioning relative to criminal acts with which the offender has been charged. 3 credits

## PY $380 \quad$ Family Counseling

An overview of the fundamental concepts of general systems theory from which family therapy has developed. Although principles from other major theories are discussed, the primary theoretical approach taught is communications. The emphasis is on looking at dysfunctional aspects of family systems and observing rigid, repetitive sequences of behavior, the crossing of hierarchical levels of organization, the lack of clear individual and family boundaries, and pathological verbal and nonverbal communication patterns. Family dynamics and stages of family development are discussed as these relate to and influence the individual development of each family member. 3 credits PREREQUISITE: PY 285.

## PY 382 (SW 382) Counseling and Therapy for the Aged, Sick, and Dying

An examination of the contemporary problems of the elderly with special emphasis on crises of illness and bereavement. 3 credits PREREQUISITE: PY 285.

## PY 384 Counseling and Therapy for Alcohol and Drug Addiction

An overview of holistic and interdisciplinary approaches is taken toward understanding and treating addictions and ways to foster healthy recovery. Emphases are on diagnostic procedures, etiological understandings, clinical syndromes, and the physical, psychosocial, and spiritual effects on the individuals, family, and society. Pretreatment, treatment, and post-treatment approaches are also explored. 3 credits PREREQUISITE: PY 285.

## PY 4041 (SW 404I, SO 404I) Death and Dying

A consideration of the current state of social science knowledge of the death and dying experiences of individuals and families. Students explore the individual and family dynamics of death, grief, and bereavement. Death rituals and practices of various belief systems are discussed as well as the belief system and cultural practices of students. Skills and techniques for coping and healing are also reviewed. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## PY $410 \quad$ Advanced Research Seminar

Advanced Research Seminar provides students with the opportunity to further develop research skills and apply these skills on independent, supervised, or collaborative research projects. The course is structured as a seminar in which students discuss their various projects while receiving instruction on research design, research ethics, and data analysis. Students in the course can choose to work on an independent project of their own, supervised research with a faculty member, or collaborative research with the course instructor and peers. Student research work will culminate in a paper and/or presentation. 3 credits PREREQUISITE: PY 320 OR PY 325.

## PY 420 (SW 420) Impact of Trauma

This course introduces the student to the field of psychology trauma. The course will be composed of lectures, discussions, guest speakers and videos. It will provide the student with an understanding of the various types of trauma and treatment, trauma theory, the impact of trauma on the mind, body and spirit, and the historical development of trauma as a clinical entity. Students will gain an appreciation of the depth of trauma and trauma rejections in the fields of social work and psychology. 3 credits PREREQUISITE: SW 104SL OR PY 101.

## PY 430 (SW 430) Crisis Intervention

An introduction to the various types of crisis situations practitioners may encounter. In addition, the course will offer various techniques and provide presentations on a variety of components needed to assist the student in understanding the concepts of crisis intervention and debriefings. Crisis events can occur in a variety of ways, and how practitioners deal with these events can be the difference between healing and hindrance. Emphasis will be upon a general understanding of the implications of techniques to modify, manage, and cope with crisis situations. 3 credits PREREQUISITE: PY 285.

## PY 440 (SW 440) Child Abuse Prevention and Treatment

This course is designed to familiarize students with child abuse in its multiple forms. Students will have the opportunity to learn the many signs and symptoms of child maltreatment that manifest in both childhood and adulthood and will investigate poisonous pedagogy, open/closed family systems, and the impact of shame on lives. Students will have an opportunity to gain an in-depth understanding of the types of child abuse as well as the signs and behaviors associated with each type. 3 credits

## PY 450/451 Internship

An opportunity for students to apply basic psychological principles to field work with physically, mentally, and socially disabled children and adults in local rehabilitation, social service, and educational facilities. Credits vary

## PY 488 (SW 488) Domestic Violence Seminar

An overview of the knowledge and skills needed to understand abuse in relationships. Students will study the dynamics of domestic violence, counseling techniques, legal ramifications, and referral sources. Competencies developed in this course can be usefully applied when assisting battered women and their children. 3 credits PREREQUISITE: PY 285.

## PY $490 \quad$ Supervised Research Project

The purpose of PY 490 Supervised Research Project is to allow our upper-level psychology major the opportunity to further develop his or her research skills. To that end, the student works with a faculty member to develop a research project. This project requires the student to identify a topic, complete a review of the salient literature, propose a research question or hypothesis, and conduct a study designed to examine or test that research question or hypothesis. The student works in collaboration with the faculty member throughout the project. 3 credits

SOCIOLOGY

## SO 104SL (SW 104SL) Introduction to Social Work

An introduction to social work as a profession, its historical development, and current practice settings. The course focuses on the history, philosophy, and structure of social movements, social policy, and social services in the United States. Emphasis is placed on critical thinking as it applies to professional values and ethics, and areas of practice. This course is required for social work majors but is also applicable for students from related fields who want to explore the history and structure of social services and social work. Students are required to complete a 40 -hour service-learning experience.
3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI AND SERVICE-LEARNING REQUIREMENTS.

## SO 152 Introduction to Sociology

A general survey of sociological concepts aimed at a basic understanding of modern society and its complexities. Culture, society, and individuals are studied within the framework of social institutions. The emphasis is on the interaction between the individual and society. 3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## SO 180 Introduction to Criminology

An introduction to the field of criminology that covers the concept of law, the measurement of crime, theories explaining criminal behavior, types of crime, the Unites States criminal justice system, the police, and the courts. 3 credits

## SO 185 (CHM 185) Introduction to Forensic Science

An introduction to the use of science and the scientific method in law and criminal justice. Designed primarily for criminal justice or science majors. Includes techniques from chemistry, biology, physics, and geology that are useful for evaluating crime-scene evidence. Topics include chemical analysis, microscopic analysis, fiber analysis, drug analysis, DNA analysis, blood analysis, and others. Three hours of integrated lecture and lab each week. Basic mathematics is used. 3 credits

## SO 187 Law Enforcement in the 21st Century

An overview of law enforcement agencies and their roles in society with an emphasis on current issues facing police departments and other agencies. 3 credits

## SO 190 Deviant Behavior in American Society

An exploration of definitions of deviance in contemporary society. Also considers variations in defining deviance over time. Emphasis is on understanding theories that explain deviant behavior. 3 credits

## SO 201 (SW 201) Introduction to Social Welfare

An exploration of the historical development of social welfare policies, the relationship of policy to social welfare programs and service, and social work values. 3 credits

## SO 214 (SW 214) Human Behavior and the Social Environment I

An introduction to theories of human behavior related to how personality, environment, and culture interact with one another to shape the individual. The life cycle of individuals is reviewed in the context of families, groups, and larger social systems including the cultural, social, and physical environment. This knowledge is useful to social workers and other practitioners in dealing with problem situations, whether created by individuals or by environmental factors. 3 credits PREREQUISITES: SW 104/104 SL, PY 101, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SO 215 Family and Society

An overview of the family as a social institution. The emphasis is on diversity in families in our own society and across cultures. Topics include marriage, parenthood, aging and widowhood, and problems within the family such as poverty and violence. 3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI REQUIREMENT.

## SO 216 (SW 216) Human Behavior and the Social Environment II

 A continuation of HBSE I (SO/SW 214) that explores theories of human behavior in groups, organizations, and communities. A social work ecosystems perspective is combined with sociology and group psychology theories that promote a working knowledge of the operation and impact of macro systems on human behavior. Primary consideration is given to concepts of empowerment, diversity, population-at-risk, and the promotion of social and economic justice. 3 credits PREREQUISITES: SW 214 (FOR SOCIAL WORK MAJORS), BIO 157, AND PY 101.
## SO 218 (PY 218, SW 218) Forensic Treatment and Correction

 An exploration of interdisciplinary practices within the correctional environment that present serious challenges to health care professionals who work in the correctional system. This course emphasizes a team approach in providing treatment to forensic consumers as well as the general population of a correctional environment. 3 credits
## SO 228 (POL 228, WS 228) Gender Law and Public Policy

This course analyzes laws, public policies, and practices that have constructed and regulated gender in the across public and private sectors, with special attention to employment and education. It examines the historical constructions of gender as a concept in American society, including how and why this concept was institutionalized publicly and privately in various arenas of the U.S. at different historical junctures. The course will conclude with a study of the progress that has been made in dismantling gendered institutions and the challenges that remain. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT. PREREQUISITES: POL 101 OR SO 152 AND CC 100 OR SKW 101.

## SO 230 (WS 230) Women in Culture and Society: A Cross-Cultural, Interdisciplinary Approach

An interdisciplinary examination of issues of gender in U.S. society and across other cultures. The basis of gender differences is explored, and then the course examines a number of aspects of society and culture-economics, politics, families, education, communication, and religion-in terms of gender differences.
3 credits FULFILLS WOMEN'S STUDIES LAI, AND GLOBAL REQUIREMENT. PREREQUISITES: CC 100 OR SKW 101, CC 101 OR SKC 101, AND CC 102 OR SKQ 101.

## SO 251S (WS 251S) Cross-Cultural Perspectives on Child-Rearing and Child Care

This course is a cross-cultural examination of child rearing and child care that focuses on contemporary societies ranging from developing countries to highly industrialized societies. The course also considers cross-cultural variations, practices, and a critical examination of the adequacy of child rearing and child care in American society.
3 credits FULFILLS WOMEN'S STUDIES LAI, AND GLOBAL REQUIREMENT.

## SO 255 (POL 255) Law, Marriage and Society

A survey of the law of family relations, including the law of marriage and annulment, divorce, legitimacy of children, custody, and adoption. The course reviews the formation, maintenance, and dissolution of the family unit, including custody, support, and property rights involving spouses, partners, and children. 3 credits PREREQUISITE: POL 101 OR PERMISSION FROM DEPARTMENT CHAIR.

## SO 260 (POL 260) Urban Communities and Politics

An examination of theories about how cities developed and function and the importance of cities in today's world. We consider the development of U.S. urban centers as well as others throughout the world. The course also focuses on social life and social problems within cities. Pittsburgh is used as an example throughout this course. 3 credits PREREQUISITES: POL 101 OR SO 152 AND CC 100 OR SKW 101.

## SO 270 ( PY 270, SW 270) Cultural Awareness and Human Services

An introduction to a practical social service process stage approach to ethnic and cultural groups. Given our culturally diverse society, intervention practice approaches have universal application to service-specific populations. Drawing on cultures as holistic designs for living, insights and strategies for addressing human needs and concerns from a culturally sensitive perspective will be covered.
3 credits FULFILLS GLOBAL REQUIREMENT. PREREQUISITE: SW 104/104SL OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SO 285 Victims of Crime

An interdisciplinary seminar focusing on the victims of crimes, with an emphasis on understanding victims' responses, restorative justice programs, and services for victims of crime. 3 credits

## SO 287 (POL 287) Introduction to Public Policy

An analysis of public policy as well as an overview of how citizens identify issues and concerns and influence policy through lobby and advocacy efforts. The relationship of public policy legislation to social problems is explored, with attention given to women and other disadvantaged groups. The acquisition of analytical skills necessary to understand, improve, and participate in the policy making process is emphasized. 3 credits FULFILLS ECONOMICS/POLITICAL SCIENCE LAI REQUIREMENT. PREREQUISITE: SO 152 OR SW 104/104SL.

## SO 289 Evidence and Procedures

This course is an in-depth look at the application of the procedural requirements of the US Criminal Justice System as mandated by the US Constitution, State Constitutions, the Federal Rules of Criminal Procedure, and the State rules of Criminal Procedure. The course covers the procedures required by the Criminal Justice system, and the courts, from the initial suspicion of a crime to post-conviction. The Fourth, Fifth, and Sixth Amendment safeguards of the US Constitution are emphasized, with a particular focus upon the purposes of Arrest Law, the law of Warrants, Search and Seizure, the Exclusionary rule, Trial procedures, and other process remedies. 3 credits

## SO 290/POL 290 Introduction to Fraud Investigation

This course will introduce students to the nature and extent of fraud. Students will learn the legal elements of fraud, the methods employees use to commit occupational fraud, and the basic principles involved in fraud investigation. It examines the sociology of fraud: the drivers for commission of occupational fraud; structural mechanisms to deter fraudulent conduct; and the manner in which fraud should be investigated and resolved in order to provide future practitioners of criminal justice with an understanding of the evolving problems of white collar crime such as business fraud and cybercrime. 3 credits

## SO 305 Contemporary Sociological Theory

This course is an overview of contemporary sociological theory in the conflict, functionalist, and microinteractionist traditions. Students learn how to read theory from primary and secondary sources and develop an understanding of theory building throughout the course. Emphasis throughout the course is on the connection between theory and observation of social life. 3 credits

## SO 310 (WS 310) Women and Work

This course examines the experiences of women in paid and unpaid work. Women comprise a significant and growing portion of the labor force. Their positions and experiences are very diverse and rooted in the specific historical and social contexts in which they live and work. The course begins with an overview of gender in society and the structure of the United States economy. It will examine the history of women's employment and women's current status in the workforce. A significant portion of the semester will be devoted to women in poverty and low-wage work. The course will conclude with an exploration of the strains associated with women's professional work experiences. 3 credits FULFILLS WOMEN'S STUDIES LAI REQUIREMENT.

## SO 312 Poverty and Related Social Problems

An examination of poverty and other social problems which may include homelessness, teen pregnancy, alcoholism, racism, sexism, ageism, domestic violence and other violence against women, drug abuse, gang behavior, and urban violence. 3 credits

## S0 315 Juvenile Delinquency

An analysis of the history of the control and prevention of juvenile delinquency. The course includes an overview of the nature and extent of juvenile delinquency, theories about delinquency, an examination of the justice system, and procedures for juveniles in this system. 3 credits

## SO 316 Greed and Violence in American Society

An examination of greed and violence in everyday life and across social institutions such as education, the family, business, politics, and religion. In this interdisciplinary course, team-taught by faculty from communication studies and sociology, theories from both disciplines are studied and applied by students as they seek to understand and explain the very visible and far-reaching incidents of violence and greed in our society. 3 credits

## SO 3171 (NU 317I) Health Care from a Global Perspective

An overview of health from a global perspective synthesizing the theory and practice of international health. The concepts of culture, globalization, and global stratification provide the framework for consideration of global health issues. 3 credits
FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## SO 325 (POL 325) Race, Law and Public Policy

This course will examine laws and public policies that have been constructed to address issues surrounding race in the areas of education, employment, and housing. It analyzes the historical constructions of race as a concept in American society, including how and why this concept was institutionalized publicly and privately in various arenas of the U.S. at different historical junctures. The course includes an examination of the progress that has been made in dismantling radicalized institutions since the Civil Rights era.
3 credits PREREQUISITES: POL 101 OR SO 152 AND CC 100 OR SKW 101.

## SO 365 Globalization

This course examines global social interaction. Questions concerning the interactions among societies and benefits and problems arising from globalization are explored. Also, the impact of global relations on the social sciences is discussed. 3 credits FULFILLS GLOBAL REQUIREMENT.

## SO 4041 (PY 404I, SW 404I) Death and Dying

A consideration of the current state of social science knowledge of the death and dying experiences of individuals and families. Students explore the individual and family dynamics of death, grief, and bereavement. Death rituals and practices of various belief systems are discussed as well as the belief system and cultural practices of students. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## SO 421 (CM 421, SW 421) Research Methods for Social Sciences I

An interdisciplinary first course in social research methods for students majoring in a social science. Students learn the fundamentals of research design and gain an understanding of a variety of research methods. As a final project, students develop a research proposal. 3 credits PREREQUISITES: CC 100 OR SKW 101; CC 101 OR SKC 101; AND CC 102 OR SKQ 101.

## SO 422 (SW 422) Research Methods II

An applied course designed for students to gain field experience in social science research. Students complete a comprehensive research project in the field using the research design created in SO 421. 3 credits PREREQUISITE: SO 421, MAT 106 OR MAT 115 OR PY 290

## SO 455 Internship

This internship provides on-the-job placement experience and is open to junior or senior students. Prior to registration, students must discuss the internship with their advisor. Credits vary; may be repeated.

## SSC COURSES

## SSC 100 Seminar on the Self

This course assists students in knowing themselves. Students participate in various learning experiences to evoke self-exploration and awareness from a variety of perspectives. This self-awareness will lead the student on a journey of self-discovery concurrently with an appreciation for how the social and behavioral sciences understand and contextualize the individual.

## SSC 120 Interpersonal/Relational Seminar

The course examines how persons use interpersonal communication to create and maintain relationships and/or cause them to deteriorate. Some issues include: the creation and negotiation of meaning; role of communication in the development and maintenance of self-identity; nature and impact of verbal and nonverbal messages;
and interpersonal perception processes and errors. It considers social diversity and the impact of cultural differences on communication and relationships. FULFILLS LAI REQUIREMENT

## SSC 230 Self in Communities: Local to Global

This course provides opportunities for students to develop an understanding of self within social, political, and economic systems. The course considers the self as formed through ethnicity, racial identity, social class, gender, and family factors. Students will examine the neighborhoods and communities in which they grew up and will reflect on ways in which these immediate environments contribute to an identity and to the development of values and goals. The course then moves to an exporation of globalization and the role of the media in this process. FULFILLS LAI REQUIREMENT

## SSC 321 (SW 321) Research Methods for Social Sciences I

This is the first in a sequence of research methods courses for students in the Social Change majors. This course familiarizes students with the most common research methods used in the social and behavioral sciences, with an emphasis on critical thinking and becoming informed consumers of research. This course culminates with the final project in which students prepare a research proposal. 3 credits PREREQUISITES: CC 100, 101, 102 OR SKC 101, SKW 101, SKQ 101.

SOCIAL WORK

## SW 104SL (SO 104SL) Introduction to Social Work

An introduction to social work as a profession, its historical development, and current practice settings. The course focuses on the history, philosophy, and structure of social movements, social policy, and social services in the United States. Emphasis is placed on critical thinking as it applies to professional values and ethics, and areas of practice. This course is required for social work majors but is also applicable for students from related fields who want to explore the history and structure of social services and social work. Students are required to complete a 40 -hour service-learning experience.
3 credits FULFILLS SOCIAL AND BEHAVIORAL SCIENCES LAI AND SERVICE-LEARNING REQUIREMENTS.

## SW 105SL Service-Learning

Students engage in various supervised service learning activities that provide opportunities to make meaningful contributions to the community. 1 credit FULFILLS SERVICE-LEARNING REQUIREMENT.

## SW 201 (S0 201) Introduction to Social Welfare

An exploration of the historical development of social welfare policies, the relationship of policy to social welfare programs, the delivery of social support services needed to fulfill basic human needs, and social work values. 3 credits

## SW 204 Theories and Methods of Practice

Designed to introduce students to theoretical and practical knowledge that will become a foundation for the entry-level professional. Topics covered include social work values, assessment, confidentiality, and contemporary theories in social work as they relate to practice with client systems. Basic psychopathology is reviewed in relation to current methods used in treatment. Students will gain an understanding of the theories behind various methods and techniques and continue to build upon them as life-long learning takes place. In addition, skill-building sessions are included as a key component of the course in order for students to experience the learning process from both the knowledge and practice levels.
3 credits PREREQUISITE: SW 104/104SL OR PY 101, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SW 214 (SO 214) Human Behavior and the Social Environment I

An introduction to theories of human behavior related to how personality, environment, and culture interact with one another to shape the individual. The life cycle of individuals is reviewed in the context of families, groups, and larger social systems including the cultural, social, and physical environment. This knowledge is useful to social workers and other practitioners in dealing with problem situations, whether created by individuals or by environmental factors. 3 credits PREREQUISITES: SW 104/104 SL, PY 101, OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SW 216 Communities, Organizations, and Groups: Theory and Praxis

This course explores human behavior in groups, organizations, and communities to achieve a theoretical, conceptual, and practical understanding of the workings of the macro social environment. An ecosystems perspective is combined with sociology and group psychology theories that promote a working knowledge of the operation and interrelatedness of macro systems and human behavior. Primary consideration is given to concepts of empowerment, diversity, populations-at-risk, and the promotion of social and economic justice at the local, national, and global levels. 3 credits PREREQUISITES: SW 214 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SW 218 (PY 218, S0 218) Forensic Treatment and Correction

An exploration of interdisciplinary practices within the correctional environment that present serious challenges to health care professionals who work in the correctional system. This course emphasizes a team approach in providing treatment to forensic consumers as well as the general population of a correctional environment. 3 credits

## SW 226SL Networking in the Community

An exploration of the community resources and services that are available to social workers and the populations they serve. Students will be required to spend time at agency settings in order to better understand the service delivery system and its impact on people.
3 credits FULFILLS SERVICE-LEARNING REQUIREMENT.

## SW 270 (PY 270, SO 270) Cultural Awareness and Human Services

An introduction to a practical social service process stage approach to ethnic and cultural groups. Given our culturally diverse society, intervention practice approaches that have universal application to service specific populations will be emphasized. Drawing on cultures as holistic designs for living, insights and strategies for addressing human needs and concerns from a culturally sensitive perspective will be covered. 3 credits FULFILLS GLOBAL REQUIREMENT.

## SW 301 Social Work Writing Lab

Individualized and small group assignments will provide students with supplemental instruction and academic support as they plan writing assignments for SW 302 Social Work with Individuals, explore the professional writing process, and strengthen writing and critical thinking skills. 1 credit COREQUISITE: SW 302.

## SW 302 Social Work with Individuals

An exploration of the basic knowledge, values, and skills of the profession of social work. The student becomes familiar with theoretical knowledge, develops basic interviewing skills, and utilizes value clarification to understand what is involved in effective, ethical social work practice and case management in a diverse society. (Micro practice course). May be taken by non-social work majors with permission of the instructor. 3 credits PREREQUISITES: SW 104/104SL. COREQUISITE: SW 301.

## SW 303 Social Welfare Policy and Analysis

The historical, economic, social, and political facets of policies are examined from the social work practitioner perspective. Policies as society's response to human social problems will be analyzed and discussed for their immediate and long-range implications. Special attention will be given to governmental entities and non-profit organizations that address social problems through service provisions. Each student will analyze in-depth one social welfare policy. 3 credits PREREQUISITE: SW 201 PERMISSION FROM DEPARTMENT CHAIR.

## SW 304 Social Work with Families

An enhancement of the application of knowledge and skills of generalist social work practice designed to enhance the skills introduced in SW 301 and 302. Discussion and simulation of assessment, intervention, and practice with families is emphasized. (Mezzo practice course). 3 credits PREREQUISITES: SW 104/104SL, SW 204 OR PERMISSION FROM THE DEPARTMENT CHAIR.

## SW 305 Social Work with Groups

An enhancement of the application of knowledge and skill of generalist social work practice and is designed to build upon SW 302. Discussion and simulation of practice with educational, support, task, and therapeutic groups is emphasized. 3 credits
PREREQUISITES: SW 301 AND 302 OR PERMISSION FROM THE DEPARTMENT CHAIR.

SW 321 (SSC 321) Research Methods for Social Sciences I
This is the first in a sequence of research methods courses for students in the Social Change majors. This course familiarizes students with the most common research methods used in the social and behavioral sciences, with an emphasis on critical thinking and becoming informed consumers of research. This course culminates with the final project in which students prepare a research proposal. 3 credits PREREQUISITES: CC 100, 101, 102 OR SKC 101, SKW 101, SKQ 101.

## SW 350I (CM 350I) Gender, Race, and Class: <br> Media and Social Change

An analysis of the role the mass media play in developing, sustaining, and challenging stereotypes. Students will explore the impact that media stereotypes have on public policy decisions as they affect groups, based on gender, race, and social class. This course is team taught as an interdisciplinary course that integrates perspectives from communication and social work. 3 credits
PREREQUISITES: CC 100 OR SKW 101 AND CC 101 OR SKC 101. FULFILLS INTERDISCIPLINARY REQUIREMENT.

## SW 351I (EN 351I) Literature and Public Policy

This interdisciplinary course examines the relationship between authors whose works inspired or reflected social justice activism and public policy changes in the 19th and 20th centuries. The interdisciplinary approach of the literary materials and social work perspectives is integrated into students' readings, research, and collaborative in-class projects. Students read and analyze fiction, such as Maggie: Girl of the Streets; drama, such as A Raisin in the Sun; and music, such as "Strange Fruit." 3 credits FULFILLS LITERARY ARTS AND SOCIAL/BEHAVIORAL SCIENCE LAI AND INTERDISCIPLINARY REQUIREMENTS.

## SW 382 (PY 382) Counseling and Therapy for the Aged, Sick, and Dying

An examination of the contemporary problems of the elderly with special emphasis on crises of illness and bereavement. 3 credits PREREQUISITE: PY 285.

## SW 400 Independent Study

An exploration of an area of study in social work which is not already offered as a course. Students design the course with the consent of a faculty member. Credits vary

## SW 402 Field Placement I

This is a supervised field placement in a selected human service agency that allows the student to integrate theory with micro, mezzo, and macro practice. Only social work majors who have been fully admitted to the social work program may register for this course. The field placement sequence should be the final course sequence. 5 credits PREREQUISITES: SW 301, SW 302, SW 304, AND SW 305. COREQUISITE: SW 405.

## SW 4041 (SO 404I, PY 404I) Death and Dying

A review of the current state of social science knowledge of the death and dying experiences of individuals and families. Students explore the individual, family, and community dynamics of death, grief, and bereavement. Death rituals and practices of various belief systems are discussed as well as the belief system and cultural practices of students. 3 credits FULFILLS GLOBAL AND INTERDISCIPLINARY REQUIREMENTS.

## SW 405 Field Placement Seminar I

A seminar designed to bring students together in a group setting to help integrate the field experience with practice skills and theory. Concurrent enrollment in SW 402. Only social work majors who have been fully admitted to the social work program may register for this course. The field placement sequence should be the final sequence that students take. 3 credits COREQUISITE: SW 402.

## SW 406 Field Placement II

This is the second in a two part sequenced field placement series. The field placement is designed to develop students' advanced skills and increase competence in utilizing skills acquired in SW 405.
Concurrent enrollment in SW 407 is required. Only social work majors who have been fully admitted to the social work program may register for this course. The field placement sequence should be the final sequence that students take. 5 credits COREQUISITE: SW 407.

## SW 407 Field Placement Seminar II

A seminar designed to advance a student's integration of theory with practice via the field experience in SW 406. Concurrent enrollment in SW 406. Only social work majors who have been fully admitted to the social work program may register for this course. The field placement sequence should be the final sequence that students take.
1 credit PREREQUISITES: SW 402, SW 405. COREQUISITE: SW 406.

## SW415 (WS 415) Women, Work and Well-Being

This course explores the history of women and work through a series of case studies. Gender roles, race and ethnicity and socioeconomic factors will be considered in discussion. It also looks at the impact of the work environment on the well-being of women. 3 credits

## SW420 (PW 420) Impact of Trauma

This course introduces the student to the field of psychological trauma. The course will be composed of lectures, discussions, guest speakers and videos. It will provide the student with an understanding of the various types of trauma and treatment, trauma theory, the impact of trauma on the mind, body and spirit, and the historical development of trauma as a clinical entity. Students will gain an appreciation of the depth of trauma and trauma rejections in the fields of social work and psychology. 3 credits PREREQUISITES: SW 104SL OR PY 101.

## SW 421 (CM 421, SO 421) Research Methods for Social Sciences I

An interdisciplinary first course in social research methods for students majoring in a social science. Students learn the fundamentals of research design and gain an understanding of a variety of research methods. As a final project, students develop a research proposal. 3 credits

## SW 422 (SO 422) Research Methods II

An applied course designed for students to gain field experience in social science research. Students complete a comprehensive research project in the field using the research design created in SW 421. 3 credits PREREQUISITE: SW 421, MAT 106 OR MAT 115 OR PY 290. THE RESEARCH SEQUENCE SHOULD EITHER BE TAKEN PRIOR TO FIELD PLACEMENT OR CONCURRENT WITH FIELD PLACEMENT.

## SW 430 (PY 430) Crisis Intervention

An introduction to the various types of crisis situations practitioners may encounter. In addition, the course will offer various techniques and provide presentations on a variety of components needed to assist the student in understanding the concepts of crisis intervention and management. Crisis events can occur in a variety of ways and, as practitioners, how we deal with these events can make the difference between healing and hindrance. Emphasis will be upon a general understanding of the implications of techniques to modify, manage, and cope with crisis situations. 3 credits

## SW 440 (PY 440) Child Abuse Prevention and Treatment

This course is designed to familiarize students with child abuse in its multiple forms. Students will have the opportunity to learn the many signs and symptoms of child maltreatment that manifest in both childhood and adulthood and will investigate poisonous pedagogy, open/closed family systems, and the impact of shame on lives. Students will have an opportunity to gain an in-depth understanding of the types of child abuse as well as the signs and behaviors associated with each type. 3 credits

## SW 488 (PY 488) Domestic Violence Seminar

An overview of the knowledge and skills needed to understand abuse in relationships. Students will study the dynamics of domestic violence, counseling techniques, legal ramifications, and referral sources. Competencies developed in this course can be usefully applied when assisting battered women and their children. 3 credits PREREQUISITE: PY 285.

# COLLEGE OF HEALTH AND WELLNESSS 

## MAJOR

NURSING

## PROGRAMS

BSN PROGRAM
RN-BSN PROGRAM
BSN STEP AHEAD PROGRAM

## ACCELERATED PROGRAM

## NURSING DEPARTMENT

## colLEge OF Health and wellness - NURSING DEPARTMENT

## NURSING POLICIES

Nursing policies are explained fully in the Nursing Department Undergraduate Student Handbook. Refer to it for specific, complete information. The Nursing Department reserves the right to make policy changes in the curriculum outline to address ongoing accreditation standards and/or professional regulations.

The following are some selected summaries:

- $\quad$ Students must earn a minimum grade of $C(2.0)$ in each of the prerequisite and COREQUISITE support courses for the major and all major courses within the time frame designated in the curriculum guide.
- BSN students must earn a cumulative test average grade of $79.00 \%$ to successfully complete all nursing courses.
- BSN students must attain a minimum GPA of 3.0 prior to enrolling in the first clinical nursing course. Students must maintain a cumulative GPA of 3.0 each semester. A "pass" must be achieved in each clinical component. Policies are in place for the student who does not achieve acceptable academic achievement. A student who falls below a 3.0 GPA will be placed on probation in the next semester; failing to return to a cumulative 3.0 GPA by the end of the probation semester will halt progression into nursing courses until the cumulative GPA returns to 3.0 or higher. A student may only be on probation two times throughout the program.
- A person convicted of any felony may be prohibited from licensure by the state at any time.
- If the program of studies is interrupted, re-entry at a later time is dependent upon the curriculum, availability of class space, and completion of required re-entry procedures.
- If RN-BSN course sections are cancelled, students will need to change campus sites or semesters.
- Statute of Limitations: Students must successfully complete all requirements for the baccalaureate degree in nursing (BSN) within a period of eight academic years, five years for RN/BSN, excluding an approved leave of absence, from the time of initial matriculation at Carlow University; and six academic years in the BSN and five years for RN-BSN programs, excluding an approved leave of absence, from the time of taking the first course in clinical nursing.
- In compliance with the State Board of Nursing regulations and policies of clinical agencies, students are required to pass a physical exam yearly. They must maintain professional liability insurance, immunizations, CPR certification, background checks, fingerprints and other requirements as described in the Nursing Department Undergraduate Student handbook. The Nursing Department reserves the right to make changes in policies and/or the curriculum outline.


## PROGRAM STUDENT LEARNER OUTCOMES

Throughout the undergraduate program, the student will be involved in the process of becoming more fully aware of self as a person and learner who is free to think clearly and creatively, actively pursue intellectual endeavors, respond ethically in a spirit of cultural competence and social justice, and ready to participate in opportunities for long-term learning.

The BSN and RN-BSN graduate is expected to:

1. Integrate theories and concepts of human experience from the humanities and social/natural sciences into professional practice.
2. Transition into the professional nursing role: demonstrating critical reasoning, providing respectful, compassionate care, valuing lifelong learning and practicing within professional, legal and ethical frameworks.
3. Demonstrate leadership and interprofessional collaborative communication to achieve patient safety, quality improvement and patient advocacy in healthcare delivery systems.
4. Integrate evidence; clinical experience; interprofessional perspectives; and patient-centered (or individual, family, and community) preferences into the plan of care.
5. Implement information technology knowledge, skills and attitude in the delivery of patient-centered care in diverse settings.
6. Apply basic knowledge of the impact of political, financial, and regulatory systems on the rapidly changing healthcare environment.
7. Demonstrate effective written and verbal communication skills for respectful interprofessional collaboration.
8. Collaborate with individuals, the interprofessional team, and the community to promote positive health outcomes and decrease health disparities.
9. Incorporate professional nursing standards and accountability into safe and competent individual and system-level practice.
*The program outcomes are based upon: The Sisters of Mercy Core Values (Carlow University Mission Statement, 2009), AACN BSN Essentials (2008) and the QSEN Pre-licensure Competencies (2012).

The programs lead to a Bachelor of Science degree in Nursing (BSN) and are fully accredited by the Commission on Collegiate Nursing Education with the BSN program also approved by the Pennsylvania State Board of Nursing.

## OVERVIEW OF UNDERGRADUATE NURSING PROGRAMS

Across the undergraduate programs, students will be involved in the process of becoming more fully aware of self as a person and learner who is free to think clearly and creatively, actively pursue intellectual endeavors, respond ethically in a spirit of cultural competence and social justice, serves as the basis for graduate study, and provides a foundation for life-long learning.

## BSN PROGRAM

Upon graduation, a BSN student is eligible to take the State Board Examination in Nursing (NCLEX-RN) and is prepared to practice as a generalist who is able to utilize the nursing process in a variety of health care settings. Graduate education in nursing generally requires that an applicant have a baccalaureate degree in nursing, and an undergraduate statistics course.

The urban location of the University offers multiple opportunities for student involvement in many dimensions of health care and contemporary life. Clinical nursing experience is an integral part of the program and is provided at various health agencies in the area. Magee- Women's Hospital of UPMC, UPMC Mercy, various UPMC locations, VA Pittsburgh Health System (Highland Drive and University Drive), Allegheny Health Network, Pittsburgh Public Schools, and community agencies are examples. Students must provide their own transportation. Public transportation is generally available.

## Purpose

The purpose of the BSN Program at Carlow University is to facilitate students' ability to recognize the integrity and value of each person and to achieve the knowledge, skills and attitudes necessary to promote patient-centered care through professional nursing practice. The program prepares the baccalaureate student to practice as a generalist who is able to utilize evidence-based practice, informatics, and collaborative communication for the delivery of safe, quality care.

## BSN Program Requirements:

A nursing major requires 120 credits for graduation. These credits are in courses in the nursing major, general education, support, and the liberal arts, including University core requirements. Students enroll in the first clinical nursing course the first semester of the sophomore year in the program following successful completion of required support courses for the major.

## Prerequisites and Corequisites to Nursing:

Natural Sciences: BIO 207, BIO 208, BIO 227, BIO 307, BIO 308, and CHM 105. Social and Behavioral Sciences: PY 122; SO 152 or SO 215

Other Requirements: MATH 115, NU 102, NU 106, NU 110, NU 223, NU 224, and NU 320.

Major Requirements: NU 2161/2162, NU 2171/2172, NU 3121/3122, NU 3161/3162, NU 3171/3172, NU 3181/3182, NU 3191/3192, NU 4211/4212, NU 4181SL/4182, NU 4111/4112, NU 420, NU 422, NU 451, and NU 463

BSN courses begin in the first or second semester of the first year and are arranged in a sequential manner, with learning experiences increasing in complexity. Courses beginning with the number 1 are first year courses, courses beginning with 2 are sophomore level courses, and so on.

## BSN STEP AHEAD PROGRAM

Program Objective: To prepare academically qualified Carlow nursing students to take a 'step ahead' of their peers as they look toward their professional future that includes graduate education and advanced practice roles.

Students who qualify for this program will earn up to 10 Master's nursing credits by the completion of their BSN degree at Carlow University.
To qualify for the Step Ahead Program, a student will:

- Apply for entry into the Step Ahead Program during the admissions process to Carlow University or at the end of the first semester of sophomore year in the Nursing program.
- Have a high School GPA of 3.5 or score 1100 on the SAT; or have cumulative GPA of 3.5 by the end of the first semester of the sophomore year at Carlow.
- Take a maximum of one Carlow skill course at Carlow.
- Be willing and able to take 6-9 credits of University core curriculum requirements outside of the regular, scheduled semesters of the nursing program (e.g. during a summer session).
- Maintain a cumulative GPA of 3.1 during the junior and senior years of the BSN program.


## RN-BSN PROGRAM

## Purpose

This program is designed for registered nurses seeking a BSN. The purpose of the program is to facilitate students' ability to recognize the integrity and value of each person and to achieve the knowledge, skills and attitudes necessary to promote patient-centered care to enhance professional growth, development, and refinement of professional nursing practice. The program prepares the baccalaureate student to practice as a generalist who is able to utilize evidence-based practice, informatics, and collaborative communication for the delivery of safe, quality care.

## RN-BSN Program Requirements:

A current, active, valid, unrestricted Pennsylvania nursing license is required. Candidates must be a graduate of an accredited nursing program. The RN-BSN major requires 120 credits for graduation. Of this total, 30 credits are advanced standing for the RN license, 24 credits are in the nursing major, and 66 credits are in general education, support, and liberal arts, including University core curriculum requirements.

## Prerequisites and Corequisites to Nursing:

University Requirements: CC 100, CC 101, a Theology and a Women's and Gender Studies or one Carlow Signature Course, and a Philosophy/ Ethics Course (PH 100, PH 103, PH 105, PH 205, PH 210) or approved equivalent.

Natural Sciences: BIO 201, BIO 202, BIO 227, and CHM 103 or CHM 105 or approved equivalent.

Social and Behavioral Sciences: PY 122; and SO 152, SO 215, or S0 251 or approved equivalent. MAT 106 or MAT 115 are recommended Program electives.

A minimum of a $C$ grade must be earned in all of the nursing support and nursing courses.

## Major Requirements:

NU 405, NU 412, NU 413, NU 430, NU 435, NU 437, NU 440, NU 450

## RN-BSN TO MS IN NURSING ACCELERATED PROGRAM

The accelerated program prepares academically qualified Carlow nursing majors to take a fast-track approach toward their professional future that includes graduate education and advanced practice roles. Students who qualify for this program may earn up to 12 master's nursing credits by the completion of their BSN degree at Carlow University. Refer to the Department of Nursing RN-BSN Student Handbook for specific policies regarding admission into and progression across the RN-BSN to MSN accelerated program curriculum.

During the RN-BSN to MSN plan of study, the student must successfully complete an undergraduate statistics course, achieve a minimum Carlow cumulative GPA of $\boldsymbol{\lambda} 3.0$, and achieve $\boldsymbol{\lambda}$ B-grade in the MSN accelerated program courses. Accelerated program students apply to one of the MSN Programs: NCEL, NCEL/MBA Dual Degree, or NP Individual Across the Lifespan and must meet MSN admission requirements including, but not limited to: submission of a current CV, two (2) professional reference letters, a personal goal statement for graduate nursing education, and, for admissions into the FNP program, have the equivalent of one year full-time direct patient care nursing experience. Please see the Department of Nursing RN-BSN and MSN Student Handbooks for a complete list of admission requirements.

Have a current, active, valid, unrestricted license as a Registered Nurse. The RN-BSN nursing major requires 120 credits for graduation. Of this total, 30 credits are advanced standing for RN license, 24 credits are in the nursing major, and 66 credits are in general education, support, and liberal arts, including University core requirements.

## Prerequisites:

Undergraduate nursing, LAI, and support courses must be completed before beginning "accelerated" MSN courses.

## Accelerated Program Requirements:

Eligibility to begin the graduate courses requires the approval of your Nursing Faculty Advisor. Only students accepted into the RN-BSN to MSN Accelerated Program may take designated MSN core courses to fulfill the minimum credit ( 120 credit) requirement for the BSN degree. The graduate core courses must begin with NU 705 and/or NU 737. Additional core courses in the Accelerated Program include NU 703 , NU 712 and NU 725.

NU 412, NU 413, NU 430, NU 435, NU 440 and NU 450; NU 705, and NU 737 (additional MSN core courses include NU 703 , NU 712 , and NU 725).

In order to begin the accelerated MSN courses students must:

- Have a current, valid, unrestricted license as a Registered Nurse. Clinical coursework must be completed in the Commonwealth or state of RN licensure.
- Meet both University and clinical agency health requirements.
- Achieve and maintain a cumulative grade point average (GPA) of greater or equal to 3.0 while at Carlow University
- Achieve a minimum grade of B- in the accelerated MSN courses to continue in the accelerated program.
- If a student obtains a grade below a B-in an MSN course, the student will return to complete the RN to BSN (not accelerated) program and may apply directly to the MSN program after earning the BSN degree.
- A grade below a B- in an MSN core course must be repeated if accepted into the MSN Program.

Note: an undergraduate Statistics course (e.g., Math 106 or 115 ) is required for admission to the MSN programs.

## MAJOR

## RESPIRATORY CARE PROGRAM

## COLLEGE OF HEALTH AND WELLNESS - RESPIRATORY CARE PROGRAM

## PROGRAM OVERVIEW

Respiratory Care is the process of utilizing academic and clinical training to teach students mastery of specialized respiratory skills, which are required in the management and treatment of a variety of patients with cardiopulmonary disorders. Respiratory therapists will treat a large variety of patients including those with asthma, emphysema, cystic fibrosis, respiratory failure, black lung, sleep apnea, cardiac arrest, premature neonates, and more. Respiratory therapists are expected to be active clinicians that identify, analyze, interpret, and implement appropriate treatments to improve the management and outcomes with patients.

Carlow's Respiratory Care program provides a unique, specialized, academic, and technical education that will prepare students to be an integral member of an exclusive health care team responsible for performing essential respiratory care functions. The program consists of eight traditional academic semesters and requires the successful completion of 120 credits of study in the designed curriculum. Students will master a variety of specialized skills and be trained to be active clinicians in all areas of respiratory practice. Upon the successful completion of all graduation requirements, the student will be awarded a Bachelor of Science in Respiratory Care and will be eligible to participate in the National Board of Respiratory Care Examinations.

## LEARNING OUTCOMES

1. The student will demonstrate proficient knowledge and application of mechanical ventilation and therapeutic adjustments.
2. The student will practice respiratory therapy according to established professional and ethical standards.
3. The student will be able to develop, evaluate, modify, and execute respiratory care treatments.
4. The student will perform, and assist in the performance of, prescribed diagnostics studies and accurately assess the obtained data to determine proper treatment methodologies within respiratory care.
5. The student will administer therapeutic medical gases.
6. The student will be able to proficiently interpret and analyze respiratory information and data.

## ACCREDITATION

The Bachelor of Science Respiratory Care Program (CoARC \# 200617) at its Pittsburgh, PA Campus holds Provisional Accreditation from the Commission on the Accreditation for Respiratory Care (www.coarc.com). This status signifies that a program that has been granted an Approval of Intent has demonstrated sufficient compliance to initiate a program in accordance with the Standards through the completion and submission of an acceptable Provisional Accreditation Self Study Report (PSSR), completion of an initial onsite visit, and other documentation required by the CoARC. The conferral of Provisional Accreditation denotes a new program that has made significant progress towards meeting the Standards of Accreditation. The program will remain on Provisional Accreditation until achieving Continuing Accreditation. It is recognized by the National Board for Respiratory Care (NBRC) toward eligibility to the Respiratory Care Credentialing Examination(s). Enrolled students completing the Provisionally Accredited Respiratory Care Program at Carlow University are considered graduates of a CoARC accredited program.

Commission on Accreditation of Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
Phone: 817 283-2835
Fax: 817 510-1063
Email: www.coarc.com

## RESPIRATORY CARE PROGRAM POLICIES

Respiratory Care policies are explained fully in the Respiratory Care Program Manual and Student Handbook. Refer to them for specific, complete information. The Respiratory Care Department reserves the right to make policy changes in the curriculum outline to address ongoing accreditation standards and/or professional regulations.

The following are some selected summaries:

- Respiratory Care students must earn a final cumulative grade of $C$ or higher ( $C$ - is considered unsuccessful) to successfully complete all respiratory care ( RC ) courses.
- A person convicted of any felony may be prohibited from licensure by the state at any time.
- If the program of study is interrupted, re-entry at a later time is dependent upon the curriculum, availability of class space, and completion of required re-entry procedures.
- Respiratory Care students will be required to complete clinical rotations which will require students to travel to the clinical sites.
- All respiratory care students are required to pass a physical exam, background checks, fingerprints, drug screens, as well as maintain professional liability insurance, immunizations, CPR certification and other requirements as described in the Respiratory Care Program Manual and Student handbook. The Respiratory Care Department reserves the right to make changes in policies and/or the curriculum outline. In order for the student to be eligible for graduation from the Respiratory Care Program they must complete all the following:
- Successful completion of all respiratory care didactic, laboratory, and clinical courses in the program curriculum with a minimum grade of C or higher. (A grade of C- and below are considered unsuccessful completion of a course)
- Successful completion of all University residency requirements as reflected in the university catalog.
- Successful completion of all respiratory care competencies contained in the student handbook.
- The student must attain a cumulative academic average of 2.0 GPA and the student must work successfully to complete $67 \%$ of his/her cumulative credits attempted by the completion of the degree.
- Students must officially apply to graduate and must complete the 120 credits reflected in the program curriculum.
- All students must successfully complete and receive verification by the Registrar's Office of their fulfillment of all course requirements.


## Respiratory Care Program Requirements:

RC 100, RC 200, RC 201, RC 221, RC 240, RC 250, RC 251, RC 280, RC 290, RC 305, RC 3100, RC 335, RC 3200, RC 321, RC 355, RC 356, RC 380, RC 381, RC 4100, RC 4200, RC 440, RC 455, RC 456, RC 480, RC 490

## Respiratory Care Support Courses:

BIO 110, BIO 120, BIO 205, CHM 111, CHM 113, PH 210, PY 122

## COLLEGE OF HEALTH AND WELLNESS

## COURSE DESCRIPTIONS

## BSN PROGRAM

## NU 102 Professional Issues

This course will focus on the very rudiments of the nursing profession. The student will be introduced to the history, philosophy, processes and the multiple roles involved in nursing practice. The student will be asked to provide assignments that are introspective and start the foundation on which to assess personal values and understand professional responsibilities in nursing. Discussions will involve current issues related to healthcare: socioeconomics, environments, politics, and known risk behaviors/modifications (QSEN) in theory before clinical experience 1 credit (1 theory, 0 clinical) PREREQUISITE: NURSING MAJORS ONLY.

## NU 106 Nutrition

Nutrition and the nursing role in health promotion and disease prevention for individuals, families and groups throughout the life span are emphasized. Food needs for energy; protein, fat, carbohydrate, vitamins and minerals will be considered in relation to maintaining nutritional status in wellness and disease states. Nutritional assessments and patient care interventions related to nutrition will be emphasized. 3 credits (3 theory, 0 clinical) PREREQUISITE: NURSING MAJORS ONLY.

## NU 110 Wellness Across the Adult Lifespan

This required freshman level theory course concentrates on the promotion of health and prevention of disease with individuals, families, groups, and communities across the adult lifespan. The primary focus of this course is the adult population in community settings. The emphasis is on nursing care that addresses the impact of personal, environmental, behavioral, financial, and cultural influences on health outcomes. Current issues, trends, and research relevant to professional nursing practice roles, ethical issues, and health advocacy/policy issues are addressed.
3 credits (3 theory, 0 clinical) PREREQUISITES: NURSING MAJORS ONLY.

## NU 223 Pharmacology in Nursing I

This is an introduction to nursing pharmacology that integrates the concepts of basic pharmacodynamics. A focus is on medication history taking techniques, routes of administration, and legal regulations
1 credit (1 theory, 0 clinical) PRE-REQUISITES: NURSING MAJORS
ONLY, CHM 105; COREQUISITES: BIO 207, BIO 227, AND NU 2161/2162.

## NU 224 Pharmacology in Nursing II

A presentation of key content areas to conceptualize the important components of nursing pharmacology related to pharmacokinetics, pharmacogenomics, and physiology. The focus is on the major drug groups in terms of: indications, mechanisms of action, drug effects, and contraindications. The principles of altered pharmacodynamics relative to age and ethnicity are included. Specific nursing responsibilities related to drug administration are emphasized including medication calculations.
3 credits (3 theory, 0 clinical) PREREQUISITES: COMPLETION OF ALL FIRST-YEAR NURSING COURSES, BIO 207, BIO 227, NU 2161/2162, AND NU 223; COREQUISITES: BIO 208, NU 2171/2172

## NU 2161/2162 Health Assessment and Fundamentals

This theory/ clinical course introduces the student to the process of health assessment based on the principles of anatomy and physiology necessary to meet the needs of individuals throughout the lifespan. The fundamentals of direct patient-centered care using the nursing process to guide safe, competent, legal, ethical, and professional nursing practice will be introduced. Students will examine individual and family roles across diverse populations Students are afforded opportunities in simulation and clinical settings to apply assessment and communication skills while beginning to implement basic nursing care interventions.
4 credits (3 theory, 1 clinical)
PREREQUISITES: COMPLETION OF ALL FIRST-YEAR LEVEL NURSING COURSES; COREQUISITES: BIO 207, BIO 227, AND NU 223.

NU 2171/2172 Health Promotion and Disease Prevention Health promotion and disease prevention are emphasized in this theory/clinical course. Students will have opportunities to provide beginning level direct, holistic patient-centered care utilizing the framework of the nursing process to guide safe, competent and professional nursing practice. This care is directed toward providing health promotion, disease prevention and therapeutic and restorative care to adults. Students will have opportunities to expand upon their knowledge and skills related to therapeutic communication skills and basic nursing care interventions with diverse populations. 4 credits (3 theory, 1 clinical) PREREQUISITES: COMPLETION OF ALL FIRST-YEAR NURSING AND SUPPORT COURSES, BIO 207, BIO 227, NU 2161/2162, NU 223; COREQUISITES: BIO 208 AND NU 224.

## NU 320 Nursing Research

This course is an introduction to the principles of nursing research. The process of scientific inquiry and an appreciation of the usefulness of the scientific method of problem solving and decision-making in nursing practice are discussed. The application of quantitative and qualitative research processes is explored. The course assists students in becoming intelligent consumers of research. Beginning skills to critique current research related to the delivery of nursing care are presented. 3 credits ( 3 theory, 0 clinical) PREREQUISITE: COMPLETION OF ALL SOPHOMORE-LEVEL NURSING COURSES.

## NU 3121/3122 Neuropsychiatric and Mental Health Nursing

This required junior level theory/clinical course is concerned with the provision of safe, quality, patient-centered mental health care with individuals, families, groups, and communities in a variety of healthcare settings. One focus is on nursing care that promotes optimal mental health functioning. A second is on nursing care that assists persons experiencing neuropsychiatric disturbances that negatively impact social and occupational functioning. The third focus is on nursing care that eases the impact of chronically ineffective behaviors. Current issues, trends, and research relevant to professional psychiatric nursing practice roles, ethical issues, and mental health advocacy/policy issues are addressed

## 4 credits (3 theory, 1 clinical)

PREREQUISITE: COMPLETION OF ALL SOPHOMORE LEVEL COURSES.

## NU 3161/3162 Nursing Care of Children and Adolescents

This junior level theory/clinical course focus is on the biopsychosocial needs of infants, children, and adolescents using a family-centered care approach. The emphasis is on the nurse's role in health promotion, prevention, therapeutic and restorative care to children and adolescents from diverse cultures in a variety of settings, based on nursing theories and evidence-based data. 4 credits (3 theory, 1 clinical) PREREQUISITE: COMPLETION OF ALL SOPHOMORE LEVEL NURSING COURSES.

## NU 3171/3172 Women's Health and Neonatal Nursing

This junior level theory/clinical course focuses on the nursing care needs of women across the lifespan and care of the mother/ neonate dyad in clinical and community settings. Emphasis is placed on patient-centered care of women from adolescence through older adulthood. The impact of pregnancy and childbirth is highlighted. Health promotion of the mother/neonate dyad and the developing family is emphasized. Gynecologic topics and the impact of gender on select disorders are discussed. Safe, competent, and quality nursing care; and political, financial and regulatory systems which impact the health of women and neonates are examined.
4 credits (3 theory, 1 clinical) PREREQUISITE: COMPLETION OF ALL SOPHOMORE-LEVEL NURSING COURSES.

## NU 3181/3182 Nursing Care of Adults I

This junior level theory/clinical course is an examination of the professional nursing care of adults experiencing acute and chronic health alterations specific to the cardiovascular, respiratory, neurological and renal systems. Emphasis is placed on the use of
the nursing process to prioritize, implement and evaluate nursing care based on the physiologic, psychosocial, educational and cultural needs of this population. Additional foci include advocating for individuals to promote positive health outcomes, collaborating with interdisciplinary health professionals, practicing within legal and ethical frameworks, and identifying current health policies that relate to each unit of study. 4 credits (3 theory, 1 clinical) PREREQUISITES: COMPLETION OF ALL SOPHOMORE LEVEL NURSING COURSES; COREQUISITE: BIO 307.

## NU 3191/3192 Nursing Care of Adults II

This junior level theory/ clinical course is an examination of the professional nursing care of adults experiencing acute and chronic health alterations specific to the gastrointestinal, immunological, endocrine and musculoskeletal systems. Emphasis is placed on the use of the nursing process to prioritize, implement and evaluate nursing care based on the physiologic, psychosocial, educational and cultural needs of this population. Additional foci include advocating for individuals to promote positive health outcomes, collaborating with interdisciplinary health professionals, practicing within legal and ethical frameworks, and identifying current health policies that relate to each unit of study. 4 credits (3 theory, 1 clinical) PREREQUISITE: COMPLETION OF ALL SOPHOMORE LEVEL NURSING COURSES; COREQUISITE: BIO 308.

## NU 400 Independent Study

An exploration of an area of study in nursing which is not already offered as a course. Students design the course with the consent of a faculty member. Credits vary.

## NU 420 Legal, Ethical, and Political Issues in Health Care

 The focus is on legal, ethical and political issues in health care. Legal and ethical principles that guide health care practice are discussed. The student explores the means of delivering care that falls within legal, ethical and culturally competent frameworks. Political forces that influence change in contemporary health care are examined. Global differences and their relationship to American health care practices are explored. 2 credits ( 2 theory, 0 clinical) PREREQUISITE: COMPLETION OF ALL JUNIOR LEVEL NURSING COURSES.
## NU 451 Introduction to Epidemiology

This course provides an introduction to the basic principles, terms and concepts of epidemiology. Concepts of risk, risk assessment models, disease distribution in populations and causality are explored. Measures of disease states and risks leg. mortality, morbidity, attributable risk, and relative risk ratio) are presented. Applications of epidemiological data are explored in relation to health promotion and disease prevention. The students will gain an understanding of the interaction of personal, biological, behavioral, genetic, and environmental factors in the development of disease. Concepts include both a description and application of epidemiology. 3 credits (3 theory, 0 clinical) PREREQUISITE: COMPLETION OF ALL JUNIOR LEVEL NURSING COURSES.

## NU 4111/4112 Leadership into Professional Nursing

This course synthesizes theory and practical nursing experience into nursing practice that is safe, evidence-based and reflective of a broad-based liberal arts education. It is the merging of knowledge and experience, evaluation of self, and the ability to provide safe and effective patient-centered care. A capstone project (NU 463 EvidenceBased Practice Capstone) will be incorporated into the practicum experience that focuses on development of an evidence-based practice change proposal arising from/within the practicum setting. Also addressed are the issues that affect current nursing care. This course provides an insightful and evaluative transition to professional practice. 4 credits (2 theory, 2 clinical) PREREQUISITE: NU 4211/4212; COREQUISITES: NU 422 AND NU 463.

## NU 4181SL/4182 Community Health Nursing

This required senior level nursing course focuses on the health of the community and various community health nursing roles through which the health care needs of the individual, family, aggregate and community can be met. Both community-based and communityfocused approaches are included. The levels of prevention, health promotion, epidemiological processes, health education, evidencebased practice, fiscal responsibility, and public health issues and practices are discussed so that the student can apply the nursing process in distributive health care settings. 4 credits (3 theory, 1 clinical) PREREQUISITE: COMPLETION OF ALL JUNIOR-LEVEL NURSING COURSES.

## NU 4211/4212 Complex Problems I

This senior level theory/clinical course focuses on the professional nursing care and management of adults experiencing acute, complex, multisystem health alterations specific to cardiovascular, respiratory, neurological and renal systems. This course builds on previous knowledge and experiences learned in Nursing Care of Adults I and II. Emphasis is placed on the expansion of both critical thinking and clinical reasoning utilizing the nursing process in the patientcentered care of adults experiencing high-risk and/or complex health problems. The clinical practice component of this course occurs in high-acuity care environments. 5 credits (3 theory, 2 clinical) PREREQUISITE: COMPLETION OF ALL JUNIOR-LEVEL NURSING COURSES.

## NU 422 Complex Problems II

This senior level theory course focuses on the professional nursing care and management of adults experiencing acute, complex, multisystem health alterations specific to gastrointestinal, immunological, hematological, integumentary, musculoskeletal systems and end of life care. This course builds on previous knowledge and experiences learned in Nursing Care of Adults I and II. Emphasis is placed on the expansion of both critical thinking and clinical reasoning utilizing the nursing process. 2 credits (2 theory, 0 clinical) PREREQUISITE: NU 4211/4212.

## NU 463 Evidence-Based Capstone

This capstone project course is a culmination of the learning experiences of the senior student in the baccalaureate nursing program. The course focuses on the Quality and Safety Education for Nurses (QSEN) Competencies Knowledge, Skills, and Attitudes and the Hospital Consumer Assessment Healthcare Providers and Systems (HCAHPS) frameworks. The student will develop a written proposal for a quality improvement project derived from evidencebased practice (EBP) that will enhance patient-centered outcomes. The proposal focuses on a potential resolution of an issue/problem identified during the Leadership Practicum Experience in NU 4112 that is significant to professional nursing and links daily nursing practice to research. The proposal includes a problem description, resolution, implementation plan, evaluation plan, and dissemination plan. The capstone project proposal will reflect synthesis and integration of course content, informatics, and professional practice. The capstone project is guided by the baccalaureate program student learner outcomes. 1 credits (0 theory, 1 clinical) PREREQUISITES: NU4211/NU4212 COREQUISITE: NU 4111/4112 AND NU 422.

RN-BSN PROGRAM

## NU 405 Nursing Leadership and Management for the RN

 This required course focuses on the concepts of nursing leadership and the management skills that are as important to professional nurses as clinical knowledge and skills. Although management theory and process is universal and its principles are used in a variety of organizational settings, this course will focus on the process in nursing administration and the management of health care units, agencies, and workers. 3 credits ( 3 theory, 0 clinical) PREREQUISITE: NU 413.
## NU 412 Professional Nursing Concepts and Practice for the RN

This course explores the wide variety of roles for professional nurses in today's dynamic and evolving health care delivery system. Areas of knowledge that professional nurses require in order to be effective in the changing health care environment will be addressed. The format of the courses requires the student to be an active participant in the learning process by contributing to discussion of the various topics. 3 credits (3 theory, 0 clinical) PREREQUISITE OR COREQUISITE: NU 413.

## NU 413 Writing Skills Lab for the RN

This senior course focuses on the development of writing skills to professional levels of compentency. This includes the use of APA format and information technology to produce written assignments that meet the professional practice standards of nursing. A culmination of tools, rubrics, and mechanics will be incorporated throughout this course, emphsizing written communication and
information literacy skills that are essential to baccalaureate nursing education. Use of Learning Management System (LMS) will actively engage students in evidence-based practice and writing activities that include research database searches, discussion boards, blogs, and wiki media. 1 (1 theory/0 clinical) PREREQUISITE: ACTIVE, CURRENT, VALID, UNRESTRICTED REGISTERED NURSING LICENSE. COREQUISITE: NU 412.

## NU 430 Research/Informatics/Decision Making

This required senior level course is designed to assist the bachelor's degree prepared nurse to be a consumer of and beginning participant in the nursing research process. It will also introduce the student to the use of information technology in the research process. Emphasis is placed on the development of the decision-making skills required to critically appraise published investigations and to utilize research findings to effect positive changes in the health status of individuals and groups through evidence-based clinical practice. 4 credits ( 4 theory, 0 clinical) PREREQUISITE: NU 412 AND NU 413.

## NU 435 Capstone: Evidenced Based Practice

This capstone project is a culmination of the learning experiences of the student in the RN to BSN nursing program. This course focuses on the Quality and Safety Education for Nurses (QSEN) Competencies, Knowledge, Skills, and Attitude framework. The student will develop a written proposal for a quality improvement project derived from evidence-based practice that will enhance clinical outcomes. The proposal focuses on resolution of an issue/ problem significant to professional nursing which links daily nursing practice to research. The proposal includes a problem description, resolution, implementation plan, evaluation plan, and dissemination plan. The capstone project proposal will reflect synthesis and integration of course content, informatics, and professional practice. The capstone project is guided by the baccalaureate program student learner.
2 credits (2 theory, 0 clinical) PREREQUISITE: NU 405, NU 412, NU 413, NU 430, NU 440, AND NU 450.

## NU 437 Legal, Ethical and Political Considerations for the RN

This course focuses on the legal, ethical, and political issues that registered nurses encounter in the current health care environment. Legal and ethical principles that guide professional nursing practice are discussed. Political forces that influence change in contemporary health care and health care reform are examined. The leadership roles of professional nurses in these areas are explored.
3 credits ( 3 theory, 0 clinical) PREREQUISITE: NU 412 AND NU 413.

## NU 440 Advanced Nursing Care for the RN

This required course is designed for the experienced RN. Students will expand their knowledge of human pathophysiology, pharmacotherapy, and physical assessment. Students will apply prior knowledge of health promotion, patient education, informatics, and evidence-based practice. Students take an active role in developing disease-specific health education. Presentation of course content is conducted through the use of various teaching methodologies.
4 credits (3 theory, 1 clinical) PREREQUISITE: NU 412 AND NU 413.

## NU 450 Community Health Nursing

This course will provide students with the opportunity to identify, discuss, and evaluate current issues related to community health nursing and public health practice. Students will utilize the nursing process in assisting individuals and groups, as part of the community, to achieve a mutually agreed upon health-related goal. Instructional methods include: lectures, AV presentations, discussion, guest lecture presentations, readings, and implementation of a community health education project. 4 credits, (3 theory, 1 clinical) PREREQUISITE: NU 412 AND NU 413.

## RESPIRATORY CARE

## RC 100 Introduction to Respiratory Care Principles

This introductory course serves as the entry point for all traditional respiratory care students. The course is designed to introduce the students to the basic fundamental principles of respiratory care. Topics to be discussed include: the historical development of the respiratory profession and organizational structure, fundamental principles of health care reimbursement, role of the respiratory care practitioner, community respiratory health, health promotion and education, basic legal and ethical aspects of respiratory care practice, utilization of physic principles within respiratory care, provision of services for and management of patients with special needs and transmissible diseases, infection control considerations, medical gas therapy, aerosol therapy, basic clinical lab values, nutrition and various RT math skills. Students will complete preparations to clinical practice including review of the fundamental principles of evaluating current scientific literature, proper charting, review OSHA and HIPPA regulations, and accurate completion of all paperwork required to begin clinical rotations. As part of this course students will also learn to develop cognitive and affective functions which are recognized in emergency situations including the performance of basic life support procedures. Certification from the American Heart Association in BLS for Healthcare providers is rewarded upon successful completion. Lastly, Students will initiate a basic discussion of cardiopulmonary anatomy and physiology and progress to the introduction of the patient assessment. 3 credits PREREQUISITES: ACCEPTANCE INTO THE RESPIRATORY CARE PROGRAM AND CHEM 111, CHEM 113, BIO 110; COREQUISITE: BIO 120.

## RC 200 Respiratory Care Equipment I

This course is designed to instruct the students basic theory of respiratory care equipment found within the clinical setting. Topics discussed include: basic respiratory equipment operating principles, humidity and aerosol therapy, bronchial hygiene techniques, tracheal suctioning, airways and maintenance, patient monitoring devices, lung expansion equipment and techniques, the production, storage and delivery of medical gases, and medical gas therapy. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 100-LEVEL SUPPORT COURSES AND RC 100; COREQUISUTES: BIO 205, RC 250, AND RC 221.

## RC 250 Respiratory Care Equipment Lab I

This course is designed to allow the students opportunity to apply information from Respiratory Care Equipment I in a laboratory setting. The student will practice techniques for administering nebulizers, oxygen set-ups, incentive spirometry, intermittent positive pressure breathing, chest physical therapy, use of flutter valves, peak flow meters, and other respiratory modalities. 1 credit PREREQUISITE: RC 100; COREQUISITES: BIO 205, RC 200, AND RC 221.

## RC 221 Comprehensive Patient Management

This course is designed to provide the student a comprehensive understanding of various aspects of patient care encountered within respiratory practice. Topics to be discussed include: patient interview process, physical assessment of the patient, chest X-ray evaluation, EKG assessment, clinical laboratory tests, techniques in the diagnosis and treatment of pulmonary disease, patterns of cardiopulmonary dysfunction, and arterial blood gas sampling and interpretation. The student will also initiate the physiological approach to the etiology, management, and prognosis of the various respiratory diseases.
3 credits PREREQUISITE: RC 100; COREQUISITES: BIO 205, RC 200, AND RC 250.

## RC 201 Respiratory Care Equipment II

This course is designed to provide the students with the basic theory of respiratory care equipment utilized in airway management. Students will master concepts concerning the differentiation, selection, application and discontinuation of endotracheal tubes, tracheostomy tubes and other artificial airway devices. Students will also be introduced to the equipment needed and application for intubation and extubation procedures. This course introduces students to basic invasive and non invasive mechanical ventilation machines and patient circuits. 3 credits PREREQUISITES: BIO 205, RC 200, RC 250, AND RC 221; COREQUISITES: RC 240, RC 251, RC 280, AND RC 290.

## RC 251 Respiratory Care Equipment Lab II

This course is designed to allow the students opportunity to apply information from Respiratory Care Equipment II in a laboratory setting. The student will practice techniques for intubation, extubation, tracheostomy procedures and trach care, use of alternative airway devices and also proper set-up of a mechanical ventilator and patient circuit. 1 credit PREREQUISITES: BIO 205, RC 200, RC 221, AND RC 250; COREQUISITES: RC 201, RC 240, RC 280, AND RC 290.

## RC 240 Cardiopulmonary Anatomy and Physiology

This course is designed to provide the students with information about the anatomy and physiology of the cardiopulmonary system including the pulmonary system, circulatory system, oxygen transport, diffusion, applied physiology of gas laws, physical principals of gases found in the respiratory system and how they relate to other body systems. Students will be instructed on extensive respiratory physiologic considerations, including normal and abnormal lung alterations within cardiopulmonary diseases. 3 credits PREREQUISITES: BIO 205, RC 200, RC 221, AND RC 250; COREQUISITES: RC 201, RC 251, RC 280, AND RC 290.

## RC 280 Respiratory Care Pharmacology

The students will be instructed on the pharmacodynamics of respiratory medication administration including the pharmaceutical, pharmacokinetic, and pharmacodynamics phases. In addition, the course covers the extensive principals of respiratory pharmacology including the application, dispensing, dosing, uses and effects of pharmacological agents administered by respiratory care practitioners. Students will also be instructed on pharmacological agents administered for cardiac and renal systems as these apply to respiratory care. 3 credits PREREQUISITES: BIO 205, RC 200, RC 221, AND RC 250; COREQUISITES: RC 201, RC 240, RC 251, AND RC 290.

## RC 290 Respiratory Care in Alternate Settings

This course is designed to instruct the students on appropriate delivery of respiratory care in alternative settings such as home care, long term acute facilities, rehabilitation centers, cardiopulmonary exercise programs, sleep labs, hyperbaric oxygenation, and smoking cessation counseling. The students will receive instruction on home care equipment, therapeutic modalities, patient selection, discharge planning, patient education, and development of a cardiopulmonary rehabilitation program. 3 credits PREREQUISITES: BIO 205, RC 200, RC 250, AND RC 221; COREQUISITES: RC 201, RC 240, RC 251, AND RC 280.

## RC 3100 Respiratory Care Clinical Education Practicum I

Clinical rotations will allow the student to apply classroom theory in the real world. Students will be exposed to various aspects of patient and cardiopulmonary care. This course provides students with practical clinical experience in the general patient care setting at an approved off-campus clinical facility. The clinical training plans for this rotation will include caring for patients receiving drug aerosol treatments, lung expansion, pulmonary hygiene, and/or oxygen therapy, chart review, chart documentation, MDI administration, and patient monitoring. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 200-LEVEL SUPPORT AND RC COURSES; COREQUISITES: RC 305 AND RC 335.

## RC 305 Cardiopulmonary Pathophysiology

The student will be expected to master various pulmonary, cardiovascular, and neurological disorders as these impact cardiopulmonary disorders in terms of definition, etiology, pathogenesis, pathology, pathophysiology, clinical manifestations, monitoring, diagnosis and treatment. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 200-LEVEL SUPPORT AND RC COURSES; COREQUISITES: RC 3100 AND RC 335.

## RC 335 Cardiopulmonary Diagnostic Processes

The students are instructed on the assessment, performance, and interpretation of bedside spirometry and pulmonary function studies including: lung mechanics, lung volumes, diffusion studies, and other pulmonary measurements such as bronchial challenge testing, exercise testing, and ABG analysis. Students will also be instructed on proper pulmonary rehabilitation techniques and procedures. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 200-LEVEL SUPPORT AND RC COURSES; COREQUISITES: RC 3100 AND RC 305.

RC 3200 Respiratory Care Clinical Education Practicum II This clinical course provides the students with clinical education
exposure to various aspects of patient and cardiopulmonary specialty areas at approved off-campus clinical facilities. The clinical training plans for this rotation will include administration and review of respiratory care procedures in various alternative settings such as home care, pulmonary rehabilitation, long term acute facilities, sleep lab, hyperbaric oxygenation, and pulmonary function laboratory. The clinical director, through site visitation, will supervise and evaluate clinical activities. 4 credits PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 321, RC 355, RC 356, RC 380, AND RC 381.

## RC 321 Advanced Patient Management

The students will be instructed in this course through a discussion of advanced cardiopulmonary monitoring procedures and techniques utilized in the management of patients in the critical care setting. Topics include medical emergencies, radiographic imagery, bronchoscopy procedures, EKG assessment and interpretation, hemodynamic techniques and monitoring, interpretation of obtained hemodynamic values, Swan-Ganz catheter indications and applications, blood pressure monitoring, and arterial line indications and applications. 3 credits PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 3200, RC 355, RC 356, RC 380, AND RC 381.

## RC 355 Mechanical Ventilation Concepts I

This course contains a comprehensive overview of mechanical ventilation concepts that encompasses ventilator settings, alarm parameters, indications, contraindications, patient selection, scenario-based application, review of pneumatic principles, physiological effects of positive pressure, and complications associated with mechanical ventilator implementation. 3 credits PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 3200, RC 321, RC 356, RC 380, AND RC 381.

## RC 356 Mechanical Ventilation Concepts Lab I

The students are expected to utilize the relevant laboratory equipment and concepts in support of the mechanical ventilation concepts course (RC 355). Procedures emphasized include: initial ventilator set-up for invasive and non-invasive ventilation, patient/ ventilator system assessment techniques, proper circuit changes and administration of aerosols to ventilated patients. The basic principles and techniques of neonatal and pediatric ventilation are also discussed. 1 credit PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 3200, RC 321, RC 355, RC 380, AND RC 381.

## RC 380 Neonatal and Pediatric Respiratory Care I

This course will instruct students to master concepts relating to: normal and abnormal fetal growth and development, fetal gas exchange and circulation, the process of neonatal delivery, and common neonatal and pediatric pulmonary disease processes. Also discussed are the anatomical and physiological changes that occur with fetal and neonatal transition. Students will develop a comprehensive strategy in the diagnosis, interpretation, monitoring and treatment of breathing disorders identified in the neonatal and pediatric patient. 3 credits PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 3200, RC 321, RC 355, RC 356, AND RC 381.

## RC $381 \quad$ Neonatal and Pediatric Respiratory Care Lab I

The students will be instructed on the respiratory laboratory equipment commonly encountered in the neonatal and pediatric environments. Students will be instructed and participate in a lab setting with emphasis on the skills related to capillary heel sampling, transcutaneous monitoring, apnea monitoring, oxyhoods, isolettes, and neonatal resuscitation. All lab techniques and concepts are in support of the materials presented in the neonatal and pediatric respiratory care I (RC 380) course. 1 credit PREREQUISITES: RC 3100, RC 305, AND RC 335; COREQUISITES: RC 3200, RC 321, RC 355, RC 356, AND RC 380.

## RC 4100 Respiratory Care Clinical Education Practicum III

This course provides students with practical clinical experience in an approved off-campus clinical site performed in a critical care arena. The clinical training plans for this rotation will include initiation respiratory therapy skills in the intensive care setting including EKG assessment and basic ventilator management. Students will be instructed on the initiation of ventilation support including patient selection, indications, contraindications, hazards, ventilator setup and optimal setting selection. The clinical director through site visitation will supervise and evaluate clinical activity. 4.5 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 300-LEVEL RC COURSES; COREQUISITES: RC 455, RC 456, AND RC 440.

## RC $440 \quad$ Microbiology for Respiratory Care

This course covers the classifications, morphology, cultivation and inhibition of microorganisms commonly found within health care environments. Emphasis is on bacteriology. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 300-LEVEL RC COURSES; COREQUISITES: RC 455, RC 456, AND RC 4100.

## RC 455 Mechanical Ventilation Concepts II

This course is a continuation of Mechanical Ventilation Concepts I (RC 355). Areas of discussion include: review of basic modes, effects and complications, stabilization, and weaning, advanced modes/forms (CV, HFJV, IRV, liquid ventilation, HFOV) of mechanical ventilation, ventilator graphics, nitric oxide, renal and cardiac impairment considerations. The students will also be instructed on all ventilator graphics and the interpretation and correction of abnormal graphic displays. 3 credits PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 300-LEVEL RC COURSES; COREQUISITES: RC 440, RC 456, AND RC 4100.

## RC 456 Mechanical Ventilation Concepts Lab II

The students are expected to utilize the relevant laboratory equipment and concepts in support of the mechanical ventilation concepts II (RC 455) course. Procedures emphasized include: assessment and troubleshooting of ventilator graphics, patient positioning techniques, advanced modes of ventilation, administration of nitric oxide, and advanced neonatal and pediatric ventilation considerations. 1 credit
PREREQUISITES: SUCCESSFUL COMPLETION OF ALL 300-LEVEL RC COURSES; COREQUISITES: RC 440, RC 455, AND RC 4100.

## RC 4200 Respiratory Care Clinical Education Practicum IV

This course provides students with additional practical clinical experience in an approved off-campus clinical site performed in an adult critical care setting and also provides clinical instruction in the neonatal intensive care setting. The training plans for this rotation will include caring for adult patients receiving mechanical ventilation and includes ventilator maintenance, weaning techniques, chart review, hemodynamic monitoring, chart documentation, and patient monitoring. In addition, the students will participate in neonatal clinical rotations and perform ventilator assessments, surfactant administration, neonatal CPAP initiation, and high frequency oscillatory ventilation. The students will develop and master the skill of ventilator graphic assessment and interpretation. The clinical director, through site visitation, will supervise and evaluate clinical activity. 4.5 credits PREREQUISITES: RC 440, RC 455, RC 456, AND RC 4100; COREQUISITES: RC 480 AND RC 490.

## RC 480 ACLS/PALS/NALS and Respiratory Care Emergencies

Instruction in this course will focus and concentrate on the actions that take place during adult, pediatric, and neonatal cardiac arrest. Subjects covered include a review of BLS, NALS, PALS, ACLS algorithms, pharmacology, EKG recognition, airway management, IV techniques, and defibrillation. Also discussed will be the recognition and treatment of various respiratory emergencies. Students will receive certification in ACLS and a renewal of their BLS upon successful completion of this course. 3 credits PREREQUISITES: BLS CERTIFICATION, RC 440, RC 455, RC 456, AND RC 4100; COREQUISITES: RC 490 AND RC 4200.

## RC 490 Comprehensive Credential Preparation

This capstone course is designed to review and assist in preparation for the written and clinical simulation portions of the CRT and RRT examinations. Students will complete a comprehensive review of disease recognition and management, treatment applications, therapeutic modifications and case study analysis. Test-taking and application skills will be stressed through various methodologies including completion of mock written and simulation examinations. The students will be required to complete a special project which includes the research, assessment and presentation of the approved clinical case topic. All capstone projects MUST receive written preapproval by the program director prior to initiating the research of the topic. 3 credits PREREQUISITES: BLS CERTIFICATION, RC 440, RC 455, RC 456, AND RC 4100; COREQUISITES: RC 480 AND RC 4200.

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## CAMPUS DIRECTORY

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P: 412.578.6072
E: academicaffairsQcarlow.edu

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Antonian Hall, Third Floor
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Visitors are welcome at Carlow University. Advance notice is recommended so that we can ensure you an informative and enjoyable visit, as well as make appropriate parking arrangements. Prospective students are urged to visit the campus and meet with students, faculty, and other members of the Carlow community. The admissions offices are on the third floor of Antonian Hall. There are separate admissions areas that serve various populations of adult, graduate, international, and traditional students. Please call 1.800.333.2275 to be directed to the appropriate office for information on programs, admission, office hours, and appointments.

Visitors needing mobility assistance should either alert the Office of Admissions or contact the Carlow University Police Department at 412.578.8898 in advance of the visit.


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