

2024/2025



UNDERGRADUATE
COURSE CATALOG

CARLOW
UNIVERSITY

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 are called to respect our diversity 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:

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Associate Vice President for Human Resources, Diversity, & Inclusion
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Title IX Coordinator; 504 Coordinator
Carlow University
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Information about how to file a complaint using the Student Disability and Discrimination Policy may be found in the Carlow University Student Handbook on the intranet, in the [myCarlow](#) portal.

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 according to ADA and Section 504 regulations. Enrolled students may request accommodations in the following link https://carlow-accommodate.symplicity.com/public_accommodation/ New and prospective students may contact the Director of Disabilities Services at 412-578-6050 or email at jms@carlow.edu. More information can be found at <https://www.carlow.edu/student-life/student-services/disability-services/>

Emergency Management

If events or conditions arise which affect the ability of Carlow University to operate in the normal course of business and the delivery of academic programs and services is impacted, the University will work to provide students with options to address completion of their academic course work as promptly as possible.

About the Carlow University Course Catalog

The Carlow University Course Catalog is the official record of Carlow University for Fall 2024 through Summer 2025. It contains information correct at the time of publication. Carlow University reserves the right to alter any or all statements contained herein. A student, by voluntarily accepting admission to Carlow University or enrolling in a class or course of study offered by Carlow, accepts the academic requirements and criteria of the institution. Normally students may finish a program of study according to the requirements under which they were admitted to the program. However, requirements and course modalities are subject to change. Changes to the catalog or course requirements and/or delivery methods will be posted to the university website or intranet. 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 requirements.

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GENERAL INFORMATION

INTRODUCTION TO CARLOW UNIVERSITY

Carlow University is a small, private, comprehensive, Catholic university offering graduate, professional and liberal arts programs. Founded in 1929 by the Sisters of Mercy, Carlow offers a liberal arts curriculum across all majors to prepare individuals for leadership in the 21st century. With an enrollment of approximately 2,000 graduate and undergraduate students, Carlow is committed to providing its students with individual attention, a supportive academic environment, and career development. Located in a culturally diverse urban setting, Carlow's 15-acre campus neighbors the University of Pittsburgh and Carnegie Mellon University. A member of the Conference for Mercy Higher Education, Carlow is recognized for educating traditional students and adult learners for a lifetime of learning, leadership, and service.

- Founded in September 1929 as Mount Mercy College
- University status awarded in 2004
- Catholic/Liberal Arts
- 2,310 students
- Diverse student body
- 12:1 student–faculty ratio
- 5 doctoral programs
- 15 graduate programs
- 29 undergraduate majors
- 26 certificate programs
- 3 associate degree programs

CARLOW UNIVERSITY CAMPUSES

MAIN-OAKLAND
3333 Fifth Avenue
Pittsburgh, PA 15213

CRANBERRY EDUCATION CENTER
Regional Learning Alliance
850 Cranberry Woods Drive
Cranberry Township, PA 16066

CARLOW UNIVERSITY AT WESTMORELAND COUNTY COMMUNITY COLLEGE
145 Pavilion Lane
Youngwood, PA 15697

CARLOW UNIVERSITY VISION

Carlow University's vision is to 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

Rooted in its Catholic identity and embodying the heritage and values of the Sisters of Mercy, the mission of Carlow University is to make available transformational educational opportunities for a diverse community of learners, and to empower 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, as we engage in reflection to understand and integrate our experiences. Education offers us the tools to recognize and 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 place 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 that 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 revered, 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.

In line with its philosophy, Carlow:

- Is committed to the liberal arts as part of its undertaking to educate the whole person: body, mind and spirit.
- Recognizes the dignity of all human persons and the value of all creation and understands that genuine wisdom and knowledge yield imperatives for justice.
- Adheres to the belief that commitment to transforming the world flows from the values of the founders of Carlow University.

THE MERCY APPROACH

The Mercy approach to teaching and scholarship creates a campus culture where individuals 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.
- Require students and graduates to challenge or affirm existing or prevailing values in the workplace and the world.
- Are embodied in the integrative Mercy approach to rigorous scholarship, creative thinking and problem solving.

CATHOLIC INTELLECTUAL TRADITION

Honoring the teachings of the Catholic Church

Carlow's Catholic identity derives from its foundation by the Sisters of Mercy and calls us to honor the teachings of the Catholic Church and to celebrate its significant liturgical events. This identity is strengthened by the University's participation in the Catholic Intellectual Tradition and its adherence to Catholic Social Teaching.

The Catholic Intellectual Tradition:

- Holds that faith and reason are not opposing positions but partners in the quest for truth, each illuminating the other.
- Is viewed as a 2,000-year-long dynamic conversation in which we continue to ask questions about our human experience and its ultimate meaning.
- Holds that truth is not static and unchanging but the source of ongoing discovery and enlightenment.

Catholic Social Teaching

Catholic Social Teaching is found in documents of the Catholic Church that speak to the social order. Primarily, this body of teaching is characterized by:

- An insistence on the dignity of the human person
- A preferential option for the poor and vulnerable
- A concern for the common good.

Adherence to these principles creates the ambiance of a Catholic institution.

DEGREES AND PROGRAMS

Undergraduate Degrees

Associate of Science (AS)
Bachelor of Arts (BA)
Bachelor of Science (BS)
Bachelor of Science in Nursing (BSN)
Bachelor of Social Work (BSW)

Graduate Degrees

Doctor of Education (EdD)
Doctor of Nursing Practice (DNP)
Doctor of Occupational Therapy (OTD)
Doctor of Physical Therapy (DPT)
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)
Master of Social Work (MSW)

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's Nursing programs are also accredited by the Commission on Collegiate Nursing Education and the Bachelor of Science in Nursing and Master of Science in Nursing (NP) are 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 and Master of Social Work program 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. The Carlow University Respiratory Therapy program Bachelor of Science Degree at its Pittsburgh, PA, campus is accredited by the Commission on Accreditation for Respiratory Care (CoARC). The Respiratory Therapy program's Associate of Science Degree holds provisional accreditation from the Commission on Accreditation for Respiratory Care. The Professional Counseling program is accredited by the Council for the Accreditation of Counseling and Related Educational Programs. The Behavioral Neuroscience Intraoperative Neuromonitoring program's affiliate institution, UPMC Presbyterian, is accredited by the Commission on Accreditation of Allied Health Education Programs for their Intraoperative Neurophysiologic Monitoring program. The Master of Education Reading Specialist program is accredited by the International Dyslexia Association. The Master of Science (MS) education program in speech-language pathology (residential) is a Candidate for Accreditation by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association. The Master of Science in Occupational Therapy (MSOT) and the entry level Doctorate in Occupational Therapy (OTD) are both Candidate for Accreditation by the Accreditation Council for Occupational Therapy Education (ACOTE). The Master of Science (MS) in Physician Assistant has been granted Accreditation-Provisional status by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). The Doctor of Physical Therapy (DPT) program has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (CAPTE).

MEMBERSHIPS

The 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 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 classified as Master's Colleges & Universities: Larger Programs » Four-year, small, primarily residential in the Carnegie Classification.

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:

Bachelor of Arts

Art

- Specializations: Art History, Ceramics, Graphic Design, Media Arts & Animation, Painting & Drawing, Art Education

Art Therapy Preparation

Communication

- Specializations: Advocacy and Social Change, Digital Media, Organizational Management

Creative Writing

Criminology

- Specialization: Applied Criminal Justice

Early Childhood Education with Certification (PreK-4)

Early Childhood Education with Special Education

Early Development and Learning

English

- Secondary Education

General Studies

Liberal Studies

Psychology

- Specializations: Child Development, Counseling, Crisis and Trauma, Neuropsychology

Special Education

Bachelor of Science

Behavioral Neuroscience

- Specializations: Intraoperative Neurophysiological Monitoring, Neuropsychology

Biology

- Specializations: Cardiovascular Perfusion, Environmental Science and Management, Human Biology, Secondary Education
- Business Management
Chemistry
- Secondary Education
- Computer Science
- Specializations: Data Science, Web Design
- Esports Business Management
Healthcare Data Analytics
Healthcare Management
Health Sciences
- Specializations: Occupational Therapy, Physician Assistant, Physical Therapy, Speech-Language Pathology
- Human Resource Management
Respiratory Therapy
- RRT to BS

Associate of Science

- Neurodiagnostic Technology
- Respiratory Therapy
- Surgical Technology

Bachelor of Science in Nursing

Nursing

- Programs: Nursing (traditional), RN-BSN, Second Degree Nursing

Bachelor of Social Work

Social Work

- Specialization: Crisis and Trauma, Forensic Social Work, Healthcare Social Work, Restorative Justice

UNDERGRADUATE CERTIFICATES

- Autism Spectrum Disorders Endorsement
- Business Certificate (via Highmark Wholecare)
- Child Development Associate Certificate
- Family Dynamics Enrichment Certificate
- Practical Nurse Certificate Program

ACCELERATED PROGRAMS

- Accelerated Program to MA in Art
- Accelerated Program to MBA Business Administration
- Accelerated Program to MS in Fraud and Forensics
- Accelerated Program to MS in Professional Counseling
- Accelerated Program to MA in Psychology
- Accelerated Program to MEd in Art Education
- Accelerated Program to MEd in Early Childhood Education
- Accelerated Program to MEd in Reading Specialist
- Accelerated Program to MEd in Secondary Education
- Accelerated Program to MEd in Special Education
- BS in Biology to MS in Cardiovascular Perfusion
- RN-BSN to MS in Nursing

PARTICIPATING MEMBERSHIP INSTITUTIONS

- Pennsylvania Transfer and Articulation Center (PaTrac)
- Department of Defense—Memorandum of Understanding

ADMISSIONS

The Carlow University community nurtures creativity, diversity, talent, and skill. Carlow welcomes any student who combines academic achievement, ability, motivation, and maturity. 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. Once 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.

TRADITIONAL FIRST-YEAR STUDENT ADMISSIONS

A traditional first-year student is someone who is applying directly from high school or who has graduated from high school within the past four years without having attempted any college credits since high school graduation.

TRADITIONAL FIRST-YEAR STUDENT ADMISSIONS REQUIREMENTS

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

In general, students should:

- Follow a college preparatory curriculum in high school (18 units of academic preparation).
- Have a B average (preferred).

High school and/or home school coursework 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 algebra II, biology, and chemistry, with trigonometry and advanced sciences also strongly recommended.

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

Carlow has a test-optional admission policy, although scores are still accepted and may be considered in the review process for some of the institution's more selective programs. Carlow will superscore SAT, ACT, or CLT exams for admission and scholarship review. In other words, the Admissions Committee will use the applicant's highest subcomponent scores to create a new composite score.

Certain academic programs have specific admissions criteria:

- Candidates for the traditional nursing BSN program must possess a minimum 3.400 cumulative high school GPA OR a minimum 3.000 cumulative high school GPA with a minimum score of 1060 or higher on the SAT (taken after March 2016) or 21 or higher on the ACT or 68 or higher on the CLT. In all cases, students should 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 (one must be algebra), and two units of lab science, including chemistry.
- Candidates for the practical nurse certificate must possess a minimum 2.500 cumulative high school GPA.
- Candidates for the respiratory therapy programs (associate or bachelor's) must possess a minimum 3.000 cumulative high school GPA OR a minimum 2.500 cumulative high school GPA with a minimum score of 920 or higher on the SAT (taken after

- March 2016) or 17 or higher on the ACT or 57 or higher on the CLT.
- Candidates for the cardiovascular perfusion specialization in the biology major, the intraoperative neurophysiological monitoring specialization in the behavioral neuroscience major, and the early childhood education major (with or without the special education specialization) must possess a minimum 3.000 cumulative high school GPA.
- Candidates for the health sciences major must possess a minimum 3.250 cumulative high school GPA.

TRADITIONAL FIRST-YEAR STUDENT ADMISSIONS PROCEDURES

Traditional first-year students applying for regular admission should:

- Submit a completed application online at www.carlow.edu. Alternatively, students may apply to Carlow using Common App at commonapp.org. It is free to apply and there is no preference given to either application method.
- Ask a school counselor to forward a complete, official high school transcript* to the Office of Admissions indicating the student's cumulative GPA, courses previously taken and grades received, courses in which the student is currently enrolled or registered, class rank (if available), and results of achievement and assessment tests.
- Submit SAT, ACT, and/or CLT scores** (if they so choose, although these are optional unless the student falls into any of the following categories:
 - International students
 - Homeschooled students
 - Students attending a high school that does not issue numeric or letter grades
 - Students planning to earn a high school equivalency credential, such as the GED, HiSET, or TASC.
- Submit an essay and/or letter of recommendation. Although optional, both are strongly recommended.
- Arrange for a personal interview, as requested.

*The transcript is considered official if it contains the seal of the institution and is issued directly to Carlow University. Transcripts can be mailed by the issuing school on paper and sent to the Office of Admissions at 3333 Fifth Ave., Pittsburgh, PA 15213. Paper transcripts personally delivered to the Office of Admissions by students are considered official only when sealed in an envelope, with the institution's seal/stamp or school official's signature over the flap. Faxed transcripts are not considered official. Carlow University will accept electronic transcripts for admissions purposes, in PDF format, if:

- The transcript is certified as official from the high school, college, and/or proprietary school using a third-party agency for the certification process, such as AVOW Systems, Docufide, National Student Clearinghouse, Parchment, Slate.org, or Scrip-Safe.
- The transcript is emailed to Carlow University as an attached PDF (no screenshots) by a counselor, registrar, or other school official using a school-issued email address and domain. Emails from commercial domains (Gmail, Yahoo, iCloud, Hotmail, etc.) will not be accepted.

Carlow is required to verify a student's high school completion status. Therefore, a final official high school transcript, certifying that a student has earned a high school diploma and the date on which it was conferred, is required to be officially enrolled. This transcript can only be accepted via the methods identified above and should be received before classes begin. Admitted students will be permitted to start classes if this transcript has not been received but will have a hold placed on their account preventing registration for any future semesters until the final official transcript has been received and high school completion status has been confirmed.

If a student passed a State-authorized examination recognized as the equivalent of a high school diploma (e.g., GED, HiSET, or TASC), then an official State certificate or transcript to that effect can be accepted in lieu of a final transcript issued by a school or school district. Such a certificate or transcript must come directly from the third-party organization contracted by the State to issue such documents. This must be received in order for an application for admission to be considered.

Carlow University has the right to refuse transcripts and/or request additional information if there is a question about the validity of a student's high school completion status or authenticity of any document received on the student's behalf. In such cases, an appropriate University representative (e.g., an admissions officer or registrar) will contact the registrar, counselor, principal, or other appropriate official at the school(s) in question to verify high school completion and/or the legitimacy of transcripts or other documents and request new ones if appropriate and necessary.

Misrepresentation or falsification of required documents may be grounds for denial or revocation of admission to the institution.

**Standardized test scores (SAT, ACT, or CLT) must be sent directly from the testing agency or must appear on your official high school transcript. Carlow cannot accept scores submitted by the student. Please use the following information to submit test scores from the testing agency:

- SAT (College Board) school code: 2421
- ACT school code: 3638
- CLT: Choose Carlow in your account

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

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 documentation and/or evaluations of progress may be requested.

Verification of high school graduation must be submitted prior to enrollment at Carlow University, and can be presented through any of the following forms:

- A diploma from a home-school agency governed by a State Board of Education;
- A letter from a local school district verifying graduation; or
- An official copy of the General Educational Development (GED), High School Equivalency Test (HiSET), or Test Assessing Secondary Completion (TASC) transcript/score report as noted previously.

ADMISSION FOR STUDENTS GRADUATING EARLY FROM HIGH SCHOOL

Most students applying as traditional first-year students do so after completing three years of high school coursework (after the "junior" year). However, some students may - through advanced or accelerated coursework - be on pace to graduate early from high school. For students who fall into this category, Carlow University will review candidates for admission if they have completed 75% of the credits necessary to meet graduation requirements for their school. This may mean that a student cannot be reviewed for admission until the first trimester or semester of their third year has concluded and grades are received.

ADMISSIONS AND SCHOLARSHIP DEADLINES

Carlow operates on a rolling admissions basis, accepting applications from incoming first-year students from August 1 of the preceding year through mid-August of the year of enrollment. 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 ensure maximum consideration for admission and scholarships/financial aid.

ADVANCED PLACEMENT AND DUAL ENROLLMENT

Incoming first-year students who have taken Advanced Placement (AP) examinations, College Level Examination Program (CLEP) examinations, International Baccalaureate (IB) examinations, 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.

AP, CLEP, and IB scores must be sent directly from the testing agency. Official transcripts from each college through which dual enrollment classes were taken must be sent directly from the applicable institution.

PROVISIONAL ADMISSION

Occasionally, an applicant is provisionally admitted to an undergraduate program. Provisional admission is granted to an applicant who does not fully meet all the admissions criteria, but for whom we believe there is a strong possibility for academic success. Provisionally admitted students are limited to 12-14 credits for their first semester, must attend mandatory meetings with their academic advisor and the Center for Academic Achievement (CAA), and must participate in an onsite bridge program immediately preceding the start of classes. Students will have the opportunity to work with their advisors to schedule future semesters.

TRANSFER/ADULT STUDENT ADMISSIONS

A traditional transfer student is someone who graduated from high school within the past four years and has attempted college credits since high school graduation. An adult transfer student is someone who graduated from high school more than four years ago and has attempted college credits since high school graduation. This includes those who would like to pursue a second bachelor's degree.

An adult first-year student is someone who graduated from high school more than four years ago but has not attempted college credits since high school graduation.

Carlow accepts transfer credits from institutions recognized as an institution of higher education or 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 catalog or a copy of the course descriptions for all courses taken at an accredited institution outside of Allegheny County may be requested to assess transfer credits to be awarded. Enrollment counselors will inform candidates when additional information is necessary.

A transfer credit evaluation will then 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 or below the 100-level do not transfer. See *Transfer of Credits* section for more information.

TRANSFER/ADULT STUDENT ADMISSIONS REQUIREMENTS

The admissions committee makes decisions based upon a careful, thorough, and holistic review of each application. Applicants must present satisfactory evidence of their ability to achieve at the college level.

While many programs require a minimum 2.000 cumulative college GPA, certain academic programs have specific admissions criteria:

- Candidates for the traditional nursing BSN program must possess a minimum 3.250 cumulative college GPA with appropriate coursework, including a science course with lab taken at the college level.
- Candidates ineligible for the traditional nursing BSN program may be considered for the pre-nursing pathway if they possess a minimum 3.000 cumulative college GPA.
- Candidates for the practical nurse certificate program must have earned a high school diploma or equivalency credential (GED, HiSET, or TASC) and must possess a minimum 2.500 cumulative GPA.
- Candidates for the traditional respiratory therapy major or associate's degree program must possess a minimum 2.500 cumulative college GPA.
- Candidates for the respiratory therapy degree completion program must have an active CRT or RRT credential, graduated with an A.S. in respiratory therapy from a CoARC-approved respiratory therapy program, and possess a minimum 2.000 cumulative college GPA.
- Candidates for the cardiovascular perfusion specialization in the biology major must possess a minimum 3.500 cumulative college GPA and a minimum 3.500 cumulative GPA in the sciences.
- Candidates for the intraoperative neurophysiological monitoring specialization in the behavioral neuroscience major must possess a minimum 3.000 cumulative college GPA and a 3.000 minimum cumulative GPA in the sciences.
- Candidates for the health sciences major must possess a minimum 3.250 cumulative college GPA and a minimum 3.250 cumulative GPA in the sciences.
- Candidates for the early childhood education major (with or without the special education specialization) must possess a minimum 3.000 cumulative college GPA. If the student is transferring 48 or more credits, he/she must also have successfully passed PAPA I or CORE ETS.

SAT/ACT/CLT scores are not required for transfer students but may be one of the factors considered for students with minimal college credits. Additionally, a final official high school transcript may be required for students with no or minimal college credits (as in the case of an adult first-year student as previously defined). Receipt of this final official high school transcript is required before a review of the applicant's candidacy can begin.

TRANSFER STUDENT ADMISSIONS PROCEDURES

Transfer students applying for regular admission should:

- Submit a completed application 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, a final official high school transcript may also be required. Additionally, letters of non-enrollment may be requested if a student's status with a particular institution is in question.

- 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 can be mailed by the issuing school on paper and sent to the Office of Admissions at 3333 Fifth Ave., Pittsburgh, PA 15213. Paper transcripts personally delivered to the Office of Admissions by students are considered official only when sealed in an envelope, with the institution's seal/stamp or school official's signature over the flap. Faxed transcripts are not considered official. Carlow University will accept electronic transcripts for admissions purposes, in PDF format, if:

- The transcript is certified as official from the high school, college, and/or proprietary school using a third-party agency for the certification process, such as AVOW Systems, Docufide, National Student Clearinghouse, Parchment, or Scrip-Safe.
- The transcript is emailed to Carlow University as an attached PDF (no screenshots) by a counselor, registrar, or other school official using a school-issued email address and domain. Emails from commercial domains (Gmail, Yahoo, iCloud, Hotmail, etc.) will not be accepted.

Carlow University has the right to refuse transcripts and/or request additional information if there is question about the authenticity of any document received on the student's behalf. In such cases, an appropriate University representative (e.g., an admissions officer or registrar) will contact the registrar, counselor, or other appropriate official at the school(s) in question to verify the legitimacy of transcripts or other documents and request new ones if appropriate and necessary.

Misrepresentation or falsification of required documents may be grounds for denial or revocation of admission to the institution.

Enrollment counselors are available to assist students and families through the admissions and financial aid processes.

ADMISSIONS DEADLINES

Carlow operates on a rolling admissions basis for transfers, typically through August each year for the fall semester, through December for the spring semester, and through April for the summer semester (or as long as space allows). However, students are encouraged to apply as early as possible. Due to space limitations in some programs, such as nursing, students are strongly encouraged to complete the application process as soon as possible.

PROVISIONAL ADMISSION

Occasionally, an applicant is provisionally admitted to an undergraduate program. Provisional admission is granted to an applicant who does not fully meet all the admissions criteria, but for whom we believe there is a strong possibility for academic success. Provisionally admitted students are limited to 12-14 credits for their first semester and must attend mandatory meetings with their academic advisor and the Center for Academic Achievement (CAA). Students will have the opportunity to work with their advisors to schedule future semesters.

CONDITIONAL ADMISSION

Many transfer applicants are conditionally admitted. This occurs when final official documentation is still needed to be fully admitted to the university. This is often the case when a student is still actively enrolled at another post-secondary institution with "in progress" coursework listed on their transcript at the time they are applying to Carlow. Conditional admission is based on the student's ability to provide us with one or more final official transcripts, or any other required documentation as requested by the Office of Admissions. Once received, the student will be fully admitted to Carlow. Conditionally admitted students can register and start classes; however, registration for the following semester is held until the student is fully admitted to the university.

ADMISSION REQUIREMENTS FOR SPECIFIC PROGRAMS

RN-BSN PROGRAM

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

- Be a graduate of an accredited diploma or associate degree program (ADN) that includes the Accreditation Commission for Education in Nursing (ACEN) or Commission on Collegiate Nursing Education (CCNE).
- Possess a minimum 2.000 cumulative college GPA.
- Have an active, current, valid, unrestricted license as a Registered Nurse. Clinical coursework must be completed in the

- Commonwealth or state of current licensure.
- Meet both university and clinical agency health requirements.

Once matriculated at Carlow, students can apply to RN-BSN to MSN Accelerated Option program. Students interested in this option must:

- Have a minimum 3.000 cumulative college GPA as an RN-BSN student.
- Complete a minimum of one semester at Carlow as an RN-BSN student.
- Have successfully completed NU 412, NU 413, and NU 430.
- Successfully complete all nursing support and Carlow Compass Program requirements prior to application to RN- BSN to MSN Accelerated Option Program.
- Have an active, current, valid, unrestricted license as a Registered Nurse. Clinical coursework must be completed in the Commonwealth or state of current licensure.
- Meet both university and clinical agency health requirements.

READMISSION TO THE UNIVERSITY

Readmission procedures have been established for the following categories of students:

- Any student who attended Carlow as a matriculated 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 academically dismissed, please see the section: READMISSION AFTER A DISMISSAL.

These students should:

- Submit a completed application online at www.carlow.edu.
- Submit official transcripts* if post-secondary institutions were attended after leaving Carlow.

Due to changing admission and curriculum requirements, the University reserves the right to reevaluate 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.

Students are readmitted on the academic standing status they held when they last attended Carlow University. Students follow the catalog in effect at the time of readmission. Some exceptions may apply. Students who seek Academic Forgiveness should refer to the Academic Forgiveness section for more information.

*The transcript is considered official if it contains the seal of the institution and is issued directly to Carlow University. Transcripts can be mailed by the issuing school on paper and sent to the Office of Admissions at 3333 Fifth Ave., Pittsburgh, PA 15213. Paper transcripts personally delivered to the Office of Admissions by students are considered official only when sealed in an envelope, with the institution's seal/stamp or school official's signature over the flap. Faxed transcripts are not considered official. Carlow University will accept electronic transcripts for admissions purposes, in PDF format, if:

- The transcript is certified as official from the high school, college, and/or proprietary school using a third-party agency for the certification process, such as AVOW Systems, Docufile, National Student Clearinghouse, Parchment, or Scrip-Safe.
- The transcript is emailed to Carlow University as an attached PDF (no screenshots) by a counselor, registrar, or other school official using a school-issued email address and domain. Emails from commercial domains (Gmail, Yahoo, iCloud, Hotmail, etc.) will not be accepted.

Carlow University has the right to refuse transcripts and/or request additional information if there is question about the authenticity of any document received on the student's behalf. In such cases, an appropriate University representative (e.g., an admissions officer or registrar) will contact the registrar, counselor, or other appropriate official at the school(s) in question to verify the legitimacy of transcripts or other documents and request new ones if appropriate and necessary.

Misrepresentation or falsification of required documents may be grounds for denial or revocation of admission to the institution.

READMISSION FOLLOWING MILITARY DEPLOYMENT

Carlow University has established readmission policies 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 time frame will follow the university policies associated with a

traditional leave of absence time frame. Exceptions to this are cited in the university military and refund deployment policy. Students who return from military service within the leave of absence time frame (one to three semesters, including summer) will re-enter 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.

INTERNATIONAL STUDENT ADMISSIONS

International students are those who are not citizens or permanent residents of the United States.

For those wishing to pursue study in the United States (rather than 100% online study from their home country), students must be enrolled in a full course of study, must maintain full-time status while enrolled, and can take no more than one online course per semester. Carlow is an F-1 school. Students must apply for and receive a visa that permits study in the United States and submit the necessary documents to the Office of Admissions.

Please note that international students may not be eligible for specific academic programs based on certification or licensure expectations and/or program format/modality.

INTERNATIONAL ADMISSIONS REQUIREMENTS AND PROCEDURES

International students applying for regular admission should:

- Submit a completed application form by applying online at www.carlow.edu.
- Submit official academic transcripts (secondary and/or post-secondary) from all institutions attended.
 - Admission decisions cannot be made without official transcripts. Originals or notarized (certified) copies are required. These documents must come directly from your school(s) in sealed envelopes or alongside a certified credential evaluation sent directly by the evaluation company. Student copies, scanned copies, or photocopies are not acceptable.
- Request a certified credential evaluation.
 - It is the applicant's responsibility to have transcript(s) from any institution outside the United States officially evaluated by a current member organization of the National Association of Credential Evaluation Services (NACES). The list of current members can be found at naces.org. Preferred NACES members include:
 - World Education Services
 - Educational Credential Evaluators
 - Josef Silny and Associates, Inc.
 - When requesting the certified credential evaluation:
 - First-year students must request a cumulative GPA on a 4.0 scale and indicate whether the credential is equivalent to a high school diploma in the United States.
 - Transfer students must request a course-by-course evaluation.
 - The evaluation company must send the official evaluation report, along with the transcript(s), directly to Carlow University. Transcripts or certified credential evaluations sent by the student will not be accepted.
- Show proof of English language proficiency. Official results from one or more of the following standardized tests must be submitted directly from the applicable testing agency. We cannot accept test scores sent by the student, school officials, consultants, liaisons, or any other person or entity. Additionally, Carlow University does not provide fee waivers to offset the cost of taking one or more of these tests.
 - TOEFL: Preferred minimum score of 90 on the Internet-based test (IBT), with no subsection below 20. Carlow school code is 2421.
 - IELTS: Preferred minimum score of 6.5. Note that Carlow does not accept the IELTS Indicator.
 - Duolingo: Preferred minimum score of 120, with no subsection below 120.
 - SAT: Preferred superscore (EBRW+Math) of at least 990 with an Evidence-Based Reading and Writing subscore of at least 510. Carlow school code is 2421.
 - ACT: Preferred superscore (composite) of at least 19 with a combined English+Reading subscore of at least 38. Carlow school code is 3638.

You may be exempt from the English Language Proficiency requirement if:

- You were born and raised in Canada, the United Kingdom, South Africa, Australia, Ireland, Belize, or Jamaica.
- You are a transfer student who has successfully completed 24 or more credits (excluding ESL courses), earning a "C" or better, from an accredited college or university in the United States, Canada, the United Kingdom, South Africa, Australia, Ireland, Belize, or Jamaica.

- Submit a copy of your valid (unexpired) passport. This can be sent by email to admissions@carlow.edu.

International students admitted to Carlow University will need to submit financial documentation for Carlow to issue a Form I-20, the Certificate of Eligibility for Nonimmigrant Student Status. These items must be received before a student can be registered for any coursework.

- Notarized Affidavit of Support
 - The Office of Admissions will send this to you which informs you of your approximate balance. Each affidavit must be submitted in its original form; copies will not be accepted.
- Official Bank or Employer’s Statement
 - All affidavits of support must be accompanied by an 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 with an accompanying statement. Bank statements should be no older than six months. Bank statements must be submitted in their original form; copies will not be accepted.

Carlow University has the right to refuse submitted documentation and/or request additional information if there is question about the authenticity of any document received on the student’s behalf. In such cases, an appropriate University representative (e.g., an admissions officer or registrar) will contact the registrar, counselor, or other appropriate official at the school(s) or agencies in question to verify the legitimacy of transcripts, test scores, or other documents and request new ones if appropriate and necessary.

Misrepresentation or falsification of required documents will render an applicant ineligible for admission and will be grounds for denial or revocation of admission to the institution.

UNDOCUMENTED STUDENTS / DEFERRED ACTION FOR CHILDHOOD ARRIVALS (DACA)

Students who are undocumented under DACA are welcome to apply to Carlow University using the procedures previously outlined. These students, upon admission, are eligible for institutional scholarships and awards but will not be able to apply or qualify for additional need-based financial assistance or federal/state aid.

GUEST STUDENTS

Guest students are those who wish to register for coursework but who are not admitted to a program of study. Guest students are not eligible for financial aid or academic recognition; however, 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. Those interested in being a guest student should visit <https://www.carlow.edu/academic-programs/academic-information/registrar/>.

DISCIPLINARY AND CRIMINAL HISTORY POLICY

Carlow University is committed to balancing transformative justice and human dignity with the safety and wellbeing of our entire campus community, including our Early Learning Center and Campus Laboratory School. We invite full disclosure of any disciplinary violations and criminal convictions as requested in the application. We may follow up with additional requests for information as necessary and may conduct a background screening as part of the review. Please note that the existence of a disciplinary or criminal past does not automatically disqualify a student from admission consideration.

Those affirming a criminal history will be asked to supply additional information, including the identity of the court, docket number, and disposition of the case. To the extent any additional information exists regarding being adjudicated guilty or convicted of a misdemeanor, felony, or other crime, those details will also be requested.

Upon receipt of this information:

- The Carlow Police will conduct a general background check.
- The results of the background check, along with the student-submitted information, are shared with the Office of Student Affairs for review. This review could trigger additional requests for information.
- Based on the subsequent review, the Office of Student Affairs provides recommendations to the Office of Admissions. A student’s enrollment may involve additional restrictions pertinent to the nature of the offense(s).

Depending on the nature of a reported disciplinary violation, the Office of Admissions reserves the right to seek additional information

and engage in a process like that which is listed above for those with a criminal history.

CONTACT INFORMATION AND LOCATIONS

MAIN (OAKLAND) CAMPUS – OFFICE OF ADMISSIONS

Carlow University
3333 Fifth Avenue
Pittsburgh, PA 15213
P: 412.578.6059 or 800.333.2275
F: 412.578.6321
E: admissions@carlow.edu
<http://www.carlow.edu/admissions>

CRANBERRY REGIONAL EDUCATION CENTER

Regional Learning Alliance
850 Cranberry Woods Drive
Cranberry Township, PA 16066
P: 724.741.1028
F: 724.741.1012

CARLOW UNIVERSITY AT WESTMORELAND COUNTY COMMUNITY COLLEGE

Business and Industry Center
145 Pavilion Lane
Youngwood, PA 15697
P: 724.838.7399 or 877.451.3001

PLACEMENT TESTING

New Traditional First-Year Students:

Prior to starting mathematics coursework at Carlow University, incoming first-year students in selected majors are invited to test in mathematics to evaluate essential foundational skills that are important for success in college, unless they are exempted from such a requirement due to credit attained through AP, CLEP, IB, or dual enrollment coursework. Students can also be exempt by scoring at or above 490 on the SAT math section or 18 on the ACT math section. The test results serve to identify the appropriate starting point in mathematics and/or become part of baseline information. Specific programs may require additional placement tests.

New Transfer/Adult Students:

Math placement tests evaluate basic competencies for students who do not have transfer equivalency credit for Compass requirements. 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, 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.

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 assists students and parents with questions about the financial aid process. All students are encouraged to utilize Self Service and myCarlow 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 housing and meals, 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 www.carlow.edu under Financial Aid Forms.

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 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.studentaid.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 Form for state grant consideration. All new students who wish to be considered for financial assistance should file the FAFSA by May 1. 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

Verification is a process in which the Financial Aid Office must verify the information reported on the FAFSA. Students whose FAFSAs are selected for verification by the federal processor must submit requested documentation according to the verification flag associated with the FAFSA results. There are two types of Verification, Standard and Statement of Identity and Educational Purpose. If selected for Standard Verification, the student must submit the Verification Worksheet and signed copies of IRS Tax Returns or Tax Return Transcripts. When possible, use the IRS Data Retrieval Tool on the FAFSA. Tax Returns 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. If selected for Statement of Identity and Educational Purpose, the student must appear in person at the Financial Aid Office or in front of a notary to complete the form and provide a government issued photo ID. Students are required to check their Self-Service record to see if documents are needed to complete verification.

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. Outside scholarships are counted as estimated financial assistance and could impact other financial aid. Information about outside scholarships can be found on Self-Service and the Carlow website. Enter "outside scholarships" in the search box on both sites.

FEDERAL FINANCIAL AID

Pell Grant: Pell Grant is a federal need-based grant awarded to undergraduates seeking their first bachelor's degree. The lifetime limit on Pell is the equivalent of twelve full-time semesters. Pell Grant received for enrollment at other institutions before enrolling at Carlow University are counted 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 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 degree-seeking 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 Unsubsidized Loan is available to students without demonstrated financial need. The borrower is responsible for the interest that accrues during half-time or full-time enrollment.

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 no 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 no more than \$23,000 in Subsidized Loan.

To apply for the Federal Direct Student Loan, the first-time borrower must complete Entrance Counseling and the Master Promissory Note at www.studentaid.gov.

The 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. 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 up to \$4,000 and juniors and seniors \$5,000.

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

Federal Work Study (FWS): This need-based financial aid program provides job opportunities for students to help pay their educational expenses. Students with FWS eligibility must apply for available positions on campus to utilize their work study award. Students are paid ~~monthly~~ bi-weekly, at least at the current federal minimum wage, and are encouraged to put their earnings toward their account balance. The Work-Study Program is administered collaboratively by the Financial Aid Office and the Office of Career Development.

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 half time 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 the Pennsylvania state grant in that semester. Enrollment in the full sixteen-week semester is required. 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. Students are also encouraged to review the PA State Grant Program document on Self-Service for important information about eligibility, disbursement of funds, and academic progress.

In addition to the PA State Grant Program, PHEAA also administers other funding opportunities. For more information, go to www.pheaa.org.

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.

FINANCIAL AID OFFER LETTERS

Once a student's request for financial aid is complete, an offer letter that shows financial aid for the entire academic year, fall and spring, is posted to Financial Aid Self Service. Students are notified via email when their offer letter is available for review. Students must officially accept their financial aid by completing the Confirmation Form available on myCarlow and on the web forms page at https://www.carlow.edu/Financial_Aid_Forms.aspx

INSTITUTIONAL FINANCIAL AID

Carlow offers merit scholarships, 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 need-based grants. Carlow Scholarships, awarded to students at the time of admission, and Need-Based Grant, awarded based on the results of the FAFSA, are available to students who qualify for a maximum of four academic years or eight semesters and are only available in the fall and spring. Students who are accepted into the BS-to MS program in Cardiovascular Perfusion and begin graduate coursework the summer after their junior year will receive institutional financial aid for a maximum of seven semesters because of the unique format of the program. Students enrolled in 3-year degree programs are eligible for institutional financial aid during the fall and spring semesters of their program.

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.elmselect.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

When a student is the recipient of federal financial aid, the funds are intended for educational purposes only. Therefore, when a student does not complete the entire period of enrollment (semester), a portion of the federal funds received may have to be returned to the federal government. The Financial Aid Office is required to recalculate Title IV (federal) financial aid if a student withdraws, drops out, is dismissed, or takes a leave of absence prior to completing 60% of a payment period or term, usually a semester. In these circumstances, the Financial Aid Office uses the Return of Title IV Funds formula to recalculate the student's eligibility for Title IV Funds, meaning the amount of federal aid the student earned. This formula is only applicable when the student withdraws from all classes and this policy is separate and distinct from the Carlow University Drop and Withdrawal Refund Policy.

Return of Title IV Funds Calculation

STEP ONE – To determine the percent of financial aid that a student earned, the formula takes the number of days completed in the semester, divided by the total number of days in the semester, excluding five or more consecutive days that Carlow University is closed such as Spring Break or Thanksgiving Break.

STEP TWO – To determine the amount of financial aid that must be returned, the formula takes the percentage earned in Step One, times the amount of federal aid disbursed or to be disbursed.

Federal financial aid includes Federal Pell Grant, Federal SEOG Grant, Federal TEACH Grant, Federal Direct Student Loan, Federal Direct PLUS Loan. Unearned financial aid is returned in the following order:

1. Federal Direct Unsubsidized Loan
2. Federal Direct Subsidized Stafford Loan
3. Federal Direct PLUS Loan (Graduate PLUS and Parent PLUS)
4. Federal Pell Grant
5. Federal Supplemental Educational Opportunity Grant (FSEOG)
6. Federal TEACH Grant

If the calculation generates a credit on the student's account, a refund will be issued to the student within 14 days. Carlow University has 45 days from the date it is determined that the student withdrew to return all unearned funds for which it is responsible. We are also required to notify the student if they owe a repayment via written communication. A notification will be sent to the student that explains any returns that have been made to the Title IV programs as a result of the withdrawal, and that remaining unearned Title IV loan funds must be repaid by the student in accordance with the terms of the loan as outlined in the Master Promissory Note.

Post Withdrawal Disbursement

If the Return of Title IV Funds calculation determines that the student received less federal financial aid than the amount earned,

Carlow University will advise the student in a written communication.

In the case of federal grants, Carlow University will make the post-withdrawal disbursement within 45 calendar days from the date the student withdrew.

If the post-withdrawal disbursement is a result of a federal student loan or Parent PLUS Loan the borrower will be notified within 30 calendar days about the offer and will have 14 calendar days to accept the post withdrawal disbursement. If a response is not received from the student or parent within the allowed time frame or the disbursement is declined, the Financial Aid Office will return any earned funds to the applicable Title IV programs.

All post-withdrawal disbursements are applied to the student account first, and any resulting credit balance is handled as noted above.

Official Withdrawal from Carlow University

Non-attendance in classes does not constitute an official withdrawal and may result in full financial obligation. Students seeking to drop all classes and withdraw or take a leave of absence from the University must complete an online Withdrawal/Leave of Absence form and submit it to the Office of the Registrar.

Students who are considering withdrawal should investigate the financial implications prior to any action by contacting the Financial Aid and/or Student Accounts Office.

For complete withdrawal from all classes in a semester, final determination of tuition and fee 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 contacting the Office of the Registrar or by submitting the withdrawal form. 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.

Unofficial Withdrawal from Carlow University

Federal regulations require schools to identify students who may have withdrawn during a semester without providing official notification. These students are classified as unofficial withdrawals for that semester and their eligibility will be recalculated. Per federal regulations, the Financial Aid Office will use the midpoint of the semester as the withdrawal date, unless we become aware that the student ceased attendance on a specific date.

Non-Attendance

If a student awarded Title IV Financial Aid does not begin attendance in the period of enrollment, the student is ineligible for any Title IV Aid.

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.

TA FUNDS

Carlow University will return any unearned TA funds on a proportional basis through at least the 60 percent portion of the period which funds were provided.

TA funds are earned proportionally during an enrollment period, with unearned funds returned based upon when a student stops attending. Complete details of our policy to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed or take a leave of absence prior to completing at least 60% of a semester can be found in the above Return of Title IV Funds policy.

Schedule for Return of Unearned TA Funds:

16 Week Course Withdraw Submitted -
Before or during weeks 1-2: 100% return
During weeks 3-4: 85% return
During weeks 5-6: 65% return
During weeks 7-8: 45% return
During week 9-10: 25% (60% of course is completed)
During weeks 11-16: 0% return

8 Week Course Withdraw Submitted -
Before or during week 1: 100% return
During week 2: 75% return
During week 3-4: 50% return
During week 5: 25% return (60% of course is completed)

5 Week Course Withdraw Submitted -
Before or during week 1: 100% return
During week 2: 50% return
During week 3: 25% return (60 percent of course is completed)
During weeks 4-5: 0% return

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 Grade Point Average of at least 2.00 and enough cumulative credits earned to equal at least sixty-seven percent of cumulative credits attempted. Students must be able to complete their program of study within 150% of the credits required, so for a 120 credit bachelor's degree program, a student must be able to earn the degree within 180 credits attempted in order to remain eligible for Title IV aid.

PROCEDURE

The Director of Financial Aid and Registrar review transcripts after each semester to determine if the student is maintaining satisfactory academic progress. 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 2.00, or the student has earned less than sixty-seven percent of their cumulative credits attempted, or both, the student will be placed on financial aid Warning for the following semester. Students are notified via email from the Academic Review Team of their Warning status. During this Warning period, the student must work to raise his or her cumulative GPA to at least a 2.00 and cumulative credits earned to at least sixty-seven percent of cumulative credits attempted. Students are strongly encouraged to utilize the tutoring opportunities in the Center for Academic Achievement, particularly during Warning semesters. Students may continue to receive financial aid while on Warning, as long as all other eligibility criteria is met.

Suspension:

At the end of the Warning semester, the Director of Financial Aid and Registrar 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 and student will face Dismissal from the university. Students are notified via email from the Academic Review Team of their status. The notification will include information about how to appeal due to extenuating circumstances. A student's financial aid will not be Suspended without a Warning semester. A student whose financial aid eligibility is Suspended may regain eligibility once he or she meets 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 if there are extenuating circumstances. If reinstatement is not mathematically possible to achieve in one semester, aid can be continued as long as an academic plan for improvement is in place and the student meets all guidelines. Extenuating circumstances that will be considered are illness, injury, death in the family, or other personal situations that can be documented by a non-family member, such as a counselor, minister, social worker or doctor. All appeals must be submitted via the online appeal form with supporting documentation.

All appeals are reviewed by the Academic Dean.

Probation:

When an appeal is approved, the student will be placed on Financial Aid Probation and will be eligible for financial aid as long as all other eligibility criteria are met.

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 course prior to the course withdrawal deadline in a given semester. Course withdrawal and other deadlines are posted on MyCarlow under the Office of the Registrar. A "WD" on a transcript influences the ratio of cumulative credits earned versus credits attempted. A withdrawal will also impact the amount of time taken to complete the program of study.

Repeated Courses:

A student wishing to make up an F or D grade can do so only by repeating the same course at Carlow. Both grades for a repeated course are recorded 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. 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 the units 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.

SATISFACTORY ACADEMIC PROGRESS POLICY FOR VETERANS

The US Department of Education and Veterans Administration regulations require institutions of higher education to set standards to measure satisfactory academic progress for students who are receiving financial aid, including Veterans Benefits. Carlow University uses the same standards to measure academic standing.

Satisfactory Progress:

Satisfactory Progress is defined as a cumulative Grade Point Average of at least 2.00 and enough cumulative credits earned to equal at least sixty-seven percent of cumulative credits attempted. Students must be able to complete their program of study within 150% of the credits required, so for a 120-credit bachelor's degree program, a student must be able to earn the degree within 180 credits attempted in order to remain eligible for Title IV aid.

PROCEDURE

The Director of Financial Aid and Registrar review transcripts after each semester to determine if the student is maintaining satisfactory academic progress. 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 2.00, or the student has earned less than sixty-seven percent of their cumulative credits attempted, or both, the student will be placed on financial aid Warning for the following semester. Students are notified via email from the Academic Review Team of their Warning status. During this Warning period, the student must work to raise their cumulative GPA to at least 2.00 and cumulative credits earned to at least sixty-seven percent of cumulative credits attempted. Students are strongly encouraged to utilize the tutoring opportunities in the Center for Academic Achievement, particularly during Warning semesters. Students may continue to receive financial aid while on Warning, as long as all other eligibility criteria is met.

Suspension:

At the end of the Warning semester, the Director of Financial Aid and Registrar 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 and student will face Dismissal from the university. Students are notified via email from the Academic Review Team of their status. The notification will include information about how to appeal due to extenuating circumstances. A student's financial aid will not be Suspended without a Warning semester. A student whose financial aid eligibility is Suspended may regain eligibility once he or she meets 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 if there are extenuating circumstances. If reinstatement is not mathematically possible to achieve in one semester, aid can be continued as long as an academic plan for improvement is in place and the student meets all guidelines. Extenuating circumstances that will be considered are illness, injury, death in the family, or other personal situations that can be documented by a non-family member, such as a counselor, minister, social worker or doctor. All appeals must be submitted via the online appeal form with supporting documentation. All appeals are reviewed by the Academic Dean.

Probation:

When an appeal is approved, the student will be placed on Financial Aid Probation and will be eligible for financial aid as long as all other eligibility criteria are met.

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 course prior to the course withdrawal deadline in a given semester. Course withdrawal and other deadlines are posted on the Registrar's Office Isadora intranet page. A "WD" on a transcript influences the ratio of cumulative credits earned versus credits attempted. A withdrawal will also impact the amount of time taken to complete the program of study.

Repeated Courses:

A student wishing to make up an F or D grade can do so only by repeating the same course at Carlow. Both grades for a repeated course are recorded 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. 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.

Pennsylvania State Grant:

For each academic year during which Pennsylvania State Grant is received, a student must successfully complete the minimum number of credits appropriate to the student's enrollment status during the semesters for which State Grant aid was received. In an academic year, students receiving two full-time semesters of State Grant must earn at least 24 credits and students receiving two part-time semesters of State Grant must earn at least 12 credits. A student who has not maintained satisfactory academic progress for State Grant 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:

- First-year—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
- Full-time—a student enrolled in 12 or more credits
- Part-time—a student enrolled in fewer than 12 credits
- Less than Half-time - < 6 credits

VETERANS AFFAIRS (VA) BENEFITS

The US Department of Veterans Affairs provides benefits to those eligible that can be used to defray the cost of tuition for approved programs of study. Carlow University accepts VA benefits for this purpose for those students that qualify. If you are interested in utilizing these benefits, you should begin by visiting the VA's website (va.gov) to check the status of your benefits and apply to use them at Carlow.

In addition, Carlow University adheres to specific policies set forth under the Veterans Benefits and Transition Act of 2018 regarding Covered Individuals. A Covered Individual is defined as any individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits.

Covered individuals may attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website e-Benefits, or a VAF 28-1905 form for chapter 31 authorization purposes) and ending on the earlier of the following dates:

- The date on which payment from VA is made to the institution.
- 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

Carlow University will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under chapter 31 or 33.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

Veterans, active duty service members, and reservists are given priority when registration opens for the coming term, regardless of class level. Please see notifications from the Office of the Registrar with specific dates and instructions.

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. Some undergraduate programs require students to follow a prescribed sequence of courses.

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 department chair/program director will assign a different academic advisor in consultation with the student and faculty.

ORIENTATION

The orientation program is the first step to a successful Carlow experience. Students will learn valuable information about their

academic programs and support services, 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. Orientation to online programs will be conducted in online modules.

TRANSCRIPT REQUESTS

All requests for official transcripts should be submitted via the National Student Clearinghouse. A link to the transcript ordering page is available on the Registrar page on Carlow's website: <https://www.carlow.edu/academic-programs/academic-information/registrar/>. A fee is charged for each transcript. Students receive one complimentary hard copy transcript upon completion of their program that is mailed with their diploma or certificate. Unofficial transcripts are available only to current students. The Office of the Registrar does not release unofficial transcripts.

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 Nu Theta:

Alpha Nu Theta is Carlow University's Chapter of Sigma Tau Delta, an International English Honor Society. The Society strives to confer distinction for high achievement in English language and literature in undergraduate, graduate, and professional studies; provide, through its local chapters, cultural stimulation on college campuses, and promote interest in literature and the English language in surrounding communities; foster all aspects of the discipline of English, including literature, language, and writing; promote exemplary character and good fellowship among its members; exhibit high standards of academic excellence; and serve society by fostering literacy.

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 biology majors.

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 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, 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.

Academic and Professional Clubs may be found on the Carlow website.

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:

- 3.9 to 4.0—summa cum laude
- 3.7 to 3.89—magna cum laude
- 3.50 to 3.69—cum laude

Latin Honors are calculated based upon grades at the conclusion of CAP III for May commencement. 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* section for more information.

STUDY ABROAD

We encourage Carlow students to enhance their on-campus and online coursework with a study abroad experience. Study abroad allows students to travel outside the United States to earn credits toward their Carlow degree requirements (major, minor, and Compass) through coursework, academic internships, and service-learning. Opportunities of varying lengths are available year-round for students of all majors and foreign language proficiency levels (including English-only programs), and funding is available to help make the experience affordable for students from a range of financial backgrounds.

There are three types of study abroad opportunities:

- **Carlow-created programs:** Designed for Carlow students and often taught by Carlow faculty, these programs typically offer focused coursework and experiential learning opportunities outside the classroom. Fees vary by program, and students may be able to use their regular financial aid, including Carlow scholarships, to help fund the experience. Current programs include spring break in Nicaragua, full-semester options in Italy and Ireland, and short-term summer options in Ireland.
- **ISEP exchange program:** Students may spend one or two semesters at any one of 250 universities around the world as part of the ISEP program. As an exchange program, students pay their regular Carlow tuition, room, and board to Carlow and pay nothing to their host university abroad. In addition, students may be able to use their regular financial aid, including Carlow scholarships, to help fund the experience. Extensive English-language coursework in a wide variety of disciplines is available across the ISEP network.
- **Third-party programs:** Students may also select credit-bearing programs offered by other universities and study abroad companies. Although students cannot use Carlow scholarships on these programs, they may still be able to use federal financial aid. Programs of varying lengths, disciplines, and prices are available around the world.

Students who are interested in studying abroad should begin the planning process as early as possible with the Center for Global Engagement, which provides support with program selection, financial planning, credit transfer, health and safety orientation, and

more.

Center for Global Engagement
www.carlow.edu/studyabroad

INTERNSHIPS AND FIELD PLACEMENTS

Off-campus fieldwork or internships are a regular part of the curriculum. There are multiple programs where students are required to do discipline-specific professional work experiences as an integral part of their program. These requirements are listed on a student's program evaluation. Students should consult with their advisor or the chair/director for details.

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 Army Reserve. Interested students find out more information at the following websites:

Army: www.rotc.pitt.edu
Air Force: www.afrotc.pitt.edu

ACADEMIC RESOURCES

CENTER FOR ACADEMIC ACHIEVEMENT

The Carlow University Center for Academic Achievement (CAA) provides tutoring and academic support to Carlow students. Professional tutors for writing and peer tutors in math, science, writing, and other content areas work in collaboration with students in both individual and group settings. Faculty-approved and CRLA-trained and certified peer tutors, who are expert students, aid and support classroom learning for a wide range of courses. Students may sign up for one-time or ongoing tutoring sessions for both in-person and online appointments. In these settings, students review course material, practice problem solving, prepare for examinations, and develop general academic skills necessary for success and self-directed, lifelong learning.

The CAA also provides Academic Coaching services. Academic coaches work with students through purposeful mentoring in academic and organization skills to promote self-efficacy and resiliency. Coaches provide guidance regarding time management, learning and study strategies, and test-taking skills in order to help students create and be accountable for achieving academic goals. Please visit [MyCarlow](#) for links to resources and tip sheets and to make an appointment with a tutor.

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 student handbook on the University website at https://www.carlow.edu/Student_Handbooks.aspx, or at the Disabilities web page at https://www.carlow.edu/Disabilities_Services.aspx

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 DSO staff and student work together to identify appropriate academic adjustments, auxiliary aids and services, and/or other reasonable accommodations. Individuals with disabilities are encouraged to request accommodations in advance of the semester when accommodations/adjustments may be needed but may request accommodations at any time in the semester. It is important to note that accommodations cannot be granted retroactively.

Accommodations can be requested through the following link [DSOAccommodateStudents](#)

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.

Copies of these guidelines for receiving accommodations are available from the Disabilities Services Office 412-578-6257 or dso@carlow.edu.

OFFICE OF CAREER DEVELOPMENT

This Office provides undergraduate students with the training and coaching they need to obtain their job (or graduate school placement of choice) at graduation. Services include one-on-one appointments, workshops, career programs, skills training, classroom presentations, on-campus employer interviews, job fairs, and online resources. All of these services are available to current students and alumni within two years after graduation.

The Office of Career Development utilizes a web-based system for job and internship postings, and notifications of career and networking events both on and off campus. Five highly trained Peer Career Advisors join the Career Development staff to provide personalized coaching for job or internship searches, resume and cover letter writing, mock interviews, assistance with e-portfolios, training in salary negotiations, and advising on careers and academic majors.

CENTER FOR EXPERIENTIAL LEARNING

The Center for Experiential Learning (CEL) assists the Carlow University community to realize a more just, merciful, and sustainable world through service, scholarship, and community partnerships.

Experiential learning complements the University's commitment to "unleash imagination" by providing opportunities for students to develop their academic, personal, and professional identities. Towards this goal, the CEL supports new ways of learning – on and off campus – that build upon the values of a liberal arts education, while connecting students to opportunities to integrate discipline-based skills with hands-on problem-solving.

The CEL recognizes six pathways to experiential learning: Community-based learning; Honors Program; international education (through the Center for Global Engagement; professional experiences (internships); public service & civic engagement; and research. These pathways allow students to encounter differences, clarify values, participate in democratic practices, and work within and across public, private, and independent sectors. Student participation in a specific pathway may result from the student's passion for a specific cause, expertise in a particular discipline, curiosity about a yet to be explored social issue, or connection with a specific community. The CEL, working with other University constituencies, is committed to providing students with the tools for effective and ethical applied learning.

GRACE LIBRARY

Grace Library supports collections and services to foster academic excellence and promote the process of self-directed, lifelong learning. The library offers more than 50,000 printed volumes and more than 140,000 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 in the online database collections and in the library.

The library collection also contains more than 1,200 DVDs, streaming videos, and videotapes. Students are issued a library barcode on the back of their ID cards that enables them to borrow up to 15 items at a time. Grace Library offers a wide array of services to make the research process easier, including:

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 412.578.6139 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 Grace 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: Grace Library owns a rich collection of print materials available for student research, including over 7,000

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 through Interlibrary Loan. Students have access to books and articles from thousands of libraries from around the world. Through Interlibrary Loan, we provide a global library collection.

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

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 POLICIES

In addition to the following academic policies, students are advised to consult with their program directors/chairs and advisors regarding major-specific policies and procedures. Some departments have program-specific handbooks.

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 or online and can occur in CAP I through VI sections. In addition to CAP sections, some courses meet over the weekend.

When an accelerated course is scheduled to meet at a time the university is closed, faculty will 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, faculty 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.

Some classes follow a unique schedule and meet for anywhere from 4-12 weeks. Course start and end dates are posted in Self Service.

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 re-admission. 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 to 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 the units taken into account for the purpose of measuring academic progress for financial aid. To complete the degree, the student must earn a minimum of 30 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 section: 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 learner-centric 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:

- Submitting another's work as one's own.
- Not properly citing sources, using exact wording without quotations or proper attribution, paraphrasing without proper citation, or improper paraphrasing.
- 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.

Copyright Violations

According to copyright law, the creator of an original work has the exclusive right to use or distribute said work. Unauthorized redistribution of copyrighted material, including any educational or training material provided by the instructor or the University or obtained from the textbook, constitutes a violation of the copyright law.

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 a staff member or a student witnesses or suspects academic misconduct, they are encouraged to report the violation to the faculty teaching the course.

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 (the 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 their 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 Academic Integrity Violation agreement detailing the misconduct and the sanction imposed to be kept in the Academic Integrity database in the Office of Academic Affairs. This agreement is kept as a means of tracking and does not 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 Committee for a 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 Committee for a hearing, as described below. The Committee may collaborate with the faculty to impose further sanctions following the hearing.

Academic Integrity Hearing Procedure

The faculty will contact the Chair of the Academic Integrity Committee at least 72 hours prior to the next regular meeting of the Committee in the fall or spring semesters to begin the academic integrity hearing process. The Chair will then notify the Dean of the College that houses the accused student's major(s), the Office of the Registrar, and the Office of Academic Affairs of the pending case.

The Academic Integrity Committee shall convene an Academic Integrity 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 or virtually, they may present their case in a written statement to be provided to the Chair of the Academic Integrity Hearing Panel 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. The faculty should also provide the Panel with written documentation of the alleged misconduct, if possible, in digital form prior to the hearing. If the student does not attend the meeting and fails to provide a written statement of their case, the hearing will continue with the evidence available.

Only members of the Academic Integrity Hearing Panel, the faculty alleging the misconduct, the accused student, witnesses (if applicable), and a representative from the Disabilities Services Office (if applicable) may attend the hearing; no other personnel shall be permitted. If a witness cannot attend the hearing, they may be asked to submit a written statement as evidence. The faculty, student, and witnesses may be excused from the room during the Panel's deliberation.

During the academic integrity 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 Academic Integrity 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 Academic Integrity 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 for a decision on appropriate sanctions. In collaboration with the faculty, the following grade sanctions may be applied:

- Zero credit on the assignment
- Failure of the course

For serious cases of academic misconduct, the Panel may consult with the program(s)/department(s) that houses the student's major area(s) of study and 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, they 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 Committee 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 after the last spring hearing of the academic year or over the summer months shall be directed to the Office of Academic Affairs, which will convene an ad hoc panel consisting of three 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 Committee

The Academic Integrity Committee is a standing committee that is available to meet once per month during the fall and spring semesters. This committee shall consist of faculty representatives from each college. The Academic Integrity Committee shall work with the Office of Student Affairs to identify eligible graduate and undergraduate students to serve on Academic Integrity Hearing Panels.

Academic Integrity Hearing Panels shall be convened as needed to take place during the Committee's scheduled meeting time.

Each Panel shall consist as follows:

- Faculty members from each College
- One student. An undergraduate student will serve if the accused is an undergraduate student, while a graduate student will serve if the accused is a graduate student. Student members must not have previous violations of the Academic Integrity Policy.

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

If a Panel member fails to attend the hearing, the hearing will proceed with the remaining members of the Panel, providing that there are at least three Panel members present.

Members serving on an Academic Integrity Hearing Panel must not have taught the accused student in the past or have personal ties to the student. If no Committee member from a particular College is eligible to serve under this condition, the Chair of the Academic Integrity Committee will work with the College representative to identify a substitute from that College.

Appeals

Following the Academic Integrity 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 Provost** within ten business days of the Panel's ruling. The decision of the Provost** is final, and a written record of the decision shall be kept on file. Should the Provost** reverse the ruling of the Panel, they 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. For appeal of a grade, students should consult the Grade Changes and Grade Appeals section. The student is encouraged initially to discuss the concern informally with the faculty member and/or department/program chair. Students must utilize internal mechanisms for grievances before involving external counsel. General counsel is not part of the internal grievance procedure.

Steps to address a concern:

1. If a student has an academic concern, they should present the situation to the faculty member in writing/email. The email must make explicit that the student is starting the grievance procedure. 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 2a 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 students 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 graduate students when a grievance is filed by a graduate student. Faculty members will be drawn from other graduate 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.

***In processes or procedures where the Provost is not available, such as academic matters requiring intervention from Academic Affairs, the Interim Provost will step in. There also may be circumstances where it is more appropriate for a cabinet member or administrator to be involved. These will be evaluated on a case-by-case basis. Students, faculty, and staff are expected to comply with any changes.*

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

All undergraduate students' academic records are reviewed at the end of each semester. 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. For first-time, first-year students, those earning a GPA below 1.0 in their first semester may be moved directly to dismissal. 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 Dean. 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 they are dismissed from the university for one year.

RE-ADMISSION AFTER A DISMISSAL

If a student is dismissed from the university, the student may apply for re-admission after one academic year, including the summer terms. For example, a student dismissed in the fall semester must sit out the following spring, summer, and fall semesters. The student must reapply to Carlow University through the Admissions Office and select "Re-admit" on the admissions application. It should be noted that a student who has been dismissed from the BSN program is not eligible for re-admission to the BSN program. In addition to the application, the procedure for consideration for re-admission 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. All readmitted students must be approved to return by a number of offices/individuals, including but not limited to, Student Affairs, Student Accounts, Financial Aid, the Registrar, and the respective College Dean. Students may be asked to submit an appeal or other documentation during this review process. The required statement and resume should be submitted with the re-application. Dismissed students who are re-admitted to the university 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. Graduation requirements are governed by the catalog in effect at time of readmission. See the Office of the Registrar for more information about catalog requirements. A student who is dismissed twice is not eligible for reinstatement or appeal. The student should also contact the Office of Financial Aid and Office of Student Accounts to address any other pertinent financial aid issues.

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 that students' progress in

achieving these goals is not sufficient?

In *Standards for Accreditation and Requirements of Affiliation (2016)*, 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. Specifically, a sustainable assessment plan in Carlow's learning assessment framework includes the following elements:

- **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/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.
- **Defined Measures and Criteria 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, ensuring that they meet our expectations and prepare students for future success. Wherever necessary, rubrics are developed to clearly explain the criteria used to evaluate outcomes.
- **Collection and Analysis of Data**
 - Upon conducting assessments of each learning outcome, programs of study and Compass curriculum areas 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.
- **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 externally accredited, including programs in the School of Nursing (CCNE), the Counseling Psychology Doctoral Program (APA), the Respiratory therapy Program (provisional accreditation through the Council on Accreditation for Respiratory therapy-COARC), and the Social Work programs (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 (a.k.a "Compass 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, information, and data on assessment of student learning are carefully evaluated by representative faculty from across the university.

CLASSIFICATION OF STUDENTS

- **First-year:** 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 in 12 or more credits
- Part-time Students: Undergraduate students enrolled in fewer than 12 credits
 - Three-quarter time = 9-11 credits
 - Half-time = 6-8 credits
 - Less than Half-time = 0-4 credits

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

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

- FERPA allows students to have the right to inspect their own records.
- FERPA creates rules regarding the confidentiality and disclosure of education records.
- 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: 1) information submitted by the student’s parents; 2) 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 that 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 the education records of other students unless the other student provides their written, signed and dated consent.

CARLOW UNIVERSITY PROCEDURES REGARDING DISCLOSURES OF STUDENT RECORDS

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 (and 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 an Authorization to Release Records form 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 Office of the Registrar. 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):

- To Carlow University officials who have been determined by the university to have legitimate educational interests in the records. A school official is:
 - 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 the purpose of tuition reimbursement.
 - 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.
- 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.
- 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.
- To organizations conducting certain studies for or on behalf of Carlow University, provided such organizations agree to protocols regarding the safeguarding of the information.
- To accrediting commissions or state licensing or regulatory bodies to carry out their functions.
- 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.
- To comply with a judicial order or lawfully issued subpoena.
- To appropriate parties in health or safety emergencies.
- To officials of another school in which a student seeks or intends to enroll.
- 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.
- 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).
- 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.

Directory information: Directory information is personally identifiable information that may be disclosed without the student's consent. Carlow University designates the following information as directory information:

- Student's name
- Address: home, local, personal email and Carlow email
- Telephone numbers
- Date and place of birth
- Program of study
- Participation in officially recognized activities and sports
- Dates of attendance
- Degrees and certificates awarded
- Most recent previously attended school
- Photograph of the student, if available
- Enrollment status (i.e., enrolled, continuing, future enrolled student, reentry, leave of absence, etc.)
- Student honors and awards received.
- 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.

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, or disclosures of directory information.

PROCEDURE TO AMEND EDUCATIONAL RECORDS

Students have the right to request that a school amend records that they believe to be inaccurate, 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 that the student wants 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>

Copying of Education Records

Online students or other students who are not able to inspect their academic records in person may request a copy of their education records. Students must follow the procedure to inspect education records as stated above. Transcripts from other institutions submitted as part of the admissions process may not be copied and distributed. Students must contact the other institutions directly to receive official transcripts.

Recording Virtual Class Sessions

Prior to a virtual session, instructors who choose to record the session must inform their students and participants that they are being recorded. Videos of recorded sessions containing students' names and images can be embedded in Celtic Online without students'

written consent. The link to the recording should be accessible only to students who are officially enrolled in the course. Recorded sessions containing students' names and images should not be posted publicly.

COURSE INFORMATION

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 the intranet. 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 the intranet 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. Dropping below full-time status may affect financial aid. Students should contact the Office of Financial Aid for details. Students must have written permission from the instructor and advisor to add a course after the first week of classes.

In Carlow accelerated courses, change of registration must be completed one day prior to the beginning of the second class. Students who miss the equivalent of 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. Add/Drop/Withdrawal dates are posted on the intranet.

CREDIT OVERLOAD

If a student's cumulative GPA is 3.20 or better, a student may take up to twenty (20) credits without written permission from the Academic Dean. In all other cases, written permission to take more than eighteen (18) credits is required from the Dean before registration. Taking more than eighteen (18) credits will incur additional tuition charges. Students should consult with Student Accounts and Financial Aid regarding the additional cost.

ATTENDANCE POLICY

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 should be aware of individual course attendance policies, as they are held accountable for meeting those standards. Students are obligated to be in attendance on days with examinations, major or minor, are scheduled. Students who are absent 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.

ACCELERATED COURSES

Accelerated courses, regardless of delivery mode, have a very specific attendance policy, and faculty teaching these courses have a responsibility to adhere to it. Students who miss more than the equivalent of two class meetings of an eight-week accelerated course will receive an F (failing grade). This policy includes partial absences that add up to more than two class meetings.

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 university 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, in order to constitute attendance.

NON-ATTENDANCE POLICY

To be eligible for a Federal Title IV grant and loan funds, a student must begin attendance in the period of enrollment for which the loan was intended. Accordingly, institutions must have a process in place to determine that the student actually began attendance.

Faculty reporting activities are necessary for the university to comply with Federal Department of Education regulation 34CFR 668.21, which requires that if a student does not begin attendance in a payment period, the institution must return all Title IV, HEA program funds that were credited or disbursed to the student's account no later than 30 days after the date that the institution becomes aware that the student will not or has not begun attendance. If the student fails to begin attendance in any classes after disbursement of federal loan funds has been made directly to the student, the institution must immediately notify the applicable Federal loan servicer that the student has not begun attendance and did not establish eligibility for federal aid. The loan servicer will then issue a final demand letter to the student borrower for repayment.

STUDENT PARTICIPATION AND ABSENCE FOR MANDATORY UNIVERSITY SPONSORED EVENTS

A university-sponsored event is defined as an event directly related to a student's education or the university community that takes place outside the classroom. Examples include participation in varsity athletics, professional conferences, on-campus theatre productions, and student orientation activities.

A student whose participation in a university-sponsored event is required (such as athletics) or would promote their education (such as presenting research at a professional conference) must notify the appropriate faculty member(s) of their participation in these particular events, as well as the anticipated absence from class. It is recommended that the student should notify the appropriate faculty member(s) at least one week prior to the actual absence, and, if it is available, present the faculty member with a schedule of their events.

The student is responsible for all material and assignments covered during the absence. In the event that a student will be absent from an examination or absent on the due date for an assignment, the student will be expected to make up the examination or submit the assignment at a time and place designated by the faculty member. All students participating in university-sponsored events must be given the opportunity to make up classwork, including labs, assignments, and exams that they miss during attendance at such sponsored events. Every effort should be made to accommodate the student, and there will be no consequences due to missing class for the events (such as point deductions for an assignment, loss of attendance points, unfavorable grade adjustments, or new assignments beyond those listed in the course syllabus).

The student should also discuss the event schedule with their academic advisor when registering for courses. To the extent that event schedules are known in advance, and to the extent that multiple sections are offered for particular courses, the student, where it is possible and where it does not adversely affect the integrity of their Carlow education, should schedule courses in such a way as to minimize schedule conflicts. Accelerated courses are not recommended for students who are aware that they have extensive travel commitments, evening obligations, or other university-sponsored activities that would cause them to miss such classes. The guidelines established by the university regarding CAP classes will apply. Realizing that circumstances which may cause an absence may vary greatly, any exceptions will be at the discretion of the faculty member on a case-by-case basis.

INDEPENDENT STUDIES AND TUTORIALS

Independent Studies: Department resources permitting, students may explore areas not covered in the Carlow 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 and with chair/program director approval. Students must have a minimum cumulative Grade Point Average (GPA) of 2.75 and demonstrate proficiency in dealing with pertinent materials. Students are expected to demonstrate learning outcomes consistent with comparable course work.

Tutorials: Courses taught infrequently but listed in the catalog may be taken as tutorials with advisor, faculty tutor, and chair/director approval, and department resources permitting. 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 or 2 credits during the summer terms only. A maximum of three (total) credits may be issued for any given summer term. EXP 250 has a special summer pricing structure. Contact Student Accounts for the fixed rate per credit.

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. A student who repeats a course one time may still be considered for financial aid for that course. No course may be taken more than three times. A student who repeats a course for which credits were earned will not earn additional credits for the repeated course. 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. 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 the event that a student has failed 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. The grade for the substituted course does not replace the grade for the original course in the calculation of the cumulative GPA. 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 course after the drop deadline and prior to the final date to withdraw in a given semester, according to the deadlines posted on the intranet. Withdrawing from a course or courses does not withdraw a student from the university. Withdrawal from the University requires submission of a Withdrawal/Leave of Absence form to the Office of the Registrar. To receive WD's for their courses, a student must submit the Withdrawal/Leave of Absence form by the posted course withdrawal deadlines. If a student submits the form after the course withdrawal deadline, they will receive the letter grades they earned for their courses. Grades of students who do not complete a course and who have not withdrawn officially will be listed as F.

CROSS-REGISTRATION (PCHE)

Full-time undergraduate students (12 credits or above) in good academic standing are eligible to participate in a cross- registration program through the Pittsburgh Council on Higher Education (PCHE), provided the course is open for cross- registration and the student has met the prerequisites. Students may cross-register for one course per semester in the fall and spring terms only. The registrant must have the approval of the appropriate dean, 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. There is no additional tuition charge to cross-register, although students 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. Cross-registration forms are available on the intranet.

There are ten 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

CREDIT FOR PRIOR LEARNING

Carlow offers five primary methods for gaining credit for college-level 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), College in High School courses, Course Challenge or Credit by Examination, and the International Baccalaureate program. 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 and in a timely manner. Any credits earned are not included in the number of credits necessary to satisfy college residency requirements. Credits earned by any of these methods are considered transfer credits and subject to the 90-credit limit for bachelor-level degrees. Note: transfer credit limits are reduced for associate-level degrees. See academic department sections for residency requirements for specific programs. Once awarded, these credits are posted on a student's official academic transcript, and how the credit is applied to degree requirements is viewable on a student's program evaluation in Self Service.

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.

College Level Examination Program (CLEP) Eligibility:

Carlow accepts CLEP credit for scores at or above the recommended 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 accelerated 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. The academic department of the course determines the appropriate criteria for credit by challenge. 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.

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.

TRANSFER OF CREDITS

Students transferring to Carlow from other institutions may have up to 90 credits accepted. Note: transfer credit limits are reduced for associate-level degrees. See academic department sections for residency requirements for specific programs. 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 in a timely manner after a student is accepted and after all transcripts have been received. It is the responsibility of the student to obtain the course descriptions or syllabi for courses when requested. Once awarded, transfer credits are posted on a student's official academic transcript, and how the credit is applied to degree requirements is viewable on a student's program evaluation in Self Service.

Once a student matriculates at Carlow University, the student must have permission from the faculty advisor and the Office of the Registrar prior to beginning a class at another institution. Students may be permitted to transfer a maximum of four classes or sixteen (16) credits from other universities, exclusive of cross-registration. This amount may be less for associate-level degree programs. The student is 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 the intranet.

Students may be awarded credits for vocational/technical programs of study. In the event a student qualifies for a technical block award, the credits can be used as elective credit only and may not be used as equivalent coursework in any of Carlow's academic programs or in fulfillment of any academic requirement. Coursework taken in vocational and technical programs of study is subject to

the same transfer policies as other college level coursework.

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 institution. Typical considerations involve accreditation guidelines, 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 check with the other institution to learn about their policies regarding transfer of credits before taking the courses.

DEGREE/CERTIFICATE 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 coursework the ability to speak and write with precision and clarity, showing evidence of competent command of the English language.

Residency Requirements: Students must earn a minimum of 30 credits in courses taken at Carlow University in order to fulfill the residence requirements for bachelor-level degrees. The residency requirement for associate-level degree programs varies. Please check the academic department section in the catalog for details. Students are required to take a minimum of 18 credits in a major at Carlow unless otherwise specified by the academic department. The total number of credits that any transfer student will need to take at Carlow will be a combination of university residency requirements, major residency requirements, and general education 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/Learning Counts, or International Baccalaureate cannot be considered as part of the residency 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 cardiovascular perfusion must present a 3.0 GPA. Students in Social Work must maintain a 2.5 cumulative GPA.

Grade Point Average: To qualify for a degree/certificate, a student must attain a cumulative academic average of 2.0 GPA by the completion of the degree/certificate. Students in degree programs must officially apply to graduate and must have a minimum of 120 credits (consult the specific academic program). Certificate students must alert the Office of the Registrar when they are about to complete the certificate requirements.

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 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. Students who change their program of study (major) will be governed by the catalog in effect when the change is made.

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. It is optional for a student to declare a minor.

Student Responsibility: Students are personally responsible for meeting all degree requirements governed by the catalog in effect at their time of enrollment. Advisors will assist them in academic planning, but it is ultimately the student's responsibility to track their academic progress.

GRADUATION POLICY

All students must submit an application for graduation in order to be reviewed by their advisors and the University Registrar. The purpose of this review is to ensure students have met requirements for their degree or certificate. Students must meet all degree or certificate requirements, including all minimum grade, credit hour, and GPA requirements per departmental and University policy. Due to the University's obligation to report graduates within federally mandated deadlines, students must submit their graduation

applications by the date required for that graduation period and no more than 30 days beyond the end of the term. Students who submit their graduation applications beyond the deadline and more than 30 days after the term end date will be reviewed for the next graduation term. In addition, students who do not complete their final courses by the aforementioned deadlines due to incomplete or in-progress grades, late submission of official transcripts for off-campus credit, or any other reason will be reviewed in the next graduation term.

DUAL MAJORS

A student can pursue dual undergraduate majors at Carlow resulting in a single or double degree. 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, the student must complete a minimum of 30 credits at Carlow for the additional degree. While previous courses can fulfill requirements if appropriate, 30 or more Carlow credits must be completed to be awarded a second degree. It is possible students may need to take more than the 30-credit minimum to complete the degree. Compass curriculum requirements are waived for the second-degree students.

Students who previously earned a Carlow University bachelor's degree and are returning to complete the requirements for Bachelor of Science in Nursing or the Second Degree in Nursing program should refer to Office of Admissions for specific residency requirements. Residency Requirement: Refer to Degree/Certificate Requirements section.

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 requirements. Major courses requirements are determined by the major department.

GRADES AND GRADING POLICIES

GRADING AND GRADE POINT AVERAGE (GPA)

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

Grade	Points	Grade	Points	Grade	Points	Grade	Points
A+	4.00	C	2.00	B+	3.25	D	1.00
A	4.00	C-	1.75	B	3.00	D-	0.75
A-	3.75	D+	1.25	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. These quality point values of grades are used for each credit attempted.

GRADING—NO POINTS ASSIGNED

AB	Absent from examination AU Audit—no points assigned
CC	Credit by Challenge
CR	Credit for course opted Credit/No Credit by student; CR = D- or above
EE	Exempt by Examination

I	Incomplete
IP	Course in progress for seminar, research, or internship extending beyond one semester
M	Military Leave of Absence
NA	Never attended (Eliminated effective Fall 1983)
NC	No credit; overcutting or failure to complete course
NG	No grade or problem with grade reported by instructor
NP	No credit for preparatory level courses (Effective Fall 1988)
NR	No credit for course opted Credit/No Credit by student
PA	Pass for preparatory level courses; P = C or better (Effective Fall 1988)
PD	Pass with distinction (MFA only)
PR	Pass with reservation (MFA only)
P/F	Course offered by Pass/Fail only
Q	Courses in progress (Eliminated effective Fall 1983)
S	Satisfactory (A, B, or C in course opted Pass/Fail by student)
U	Unsatisfactory (D or F in course opted Pass/Fail by student)
WD	Withdrawn

AUDITING A COURSE

Students may audit a course with the instructor's permission and must register through the Office of the Registrar. Students should consult with Student Accounts regarding fees for auditing a course. A grade of AU 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.

GRADE CHANGES AND GRADE APPEALS

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 instructor. To change a grade, the faculty member must complete the Change of Grade form and obtain the appropriate department chair's or program director's signature. Completed forms are to be submitted to the Office of the Registrar by the instructor.

Students who have questions regarding a final course grade are to first consult with the instructor who originally awarded the grade. Any request for a grade reconsideration must be made to the faculty member in writing/email within 30 calendar days of the beginning of the semester following the one for which the first grade was first issued. If the instructor does not believe the evidence warrants a change of grade, the student may appeal within 30 calendar days of the instructor's written/emailed decision by following the appeal process outlined below.

If an acceptable solution cannot be reached by discussion with the instructor, the student may appeal by sending a written statement to the instructor and department chair/program director, along with any supporting evidence. The department chair/program director will then work with the instructor to review and assess the student's claims. The decision will be communicated to the student in email by the department chair/program director and will be final. This process is not intended to replace informal conferences between a student and instructor concerning the issuance of a grade. In the event the instructor is the department chair/program director, the student should consult with the dean of the college.

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, including summer terms). Official deadlines for each semester will be supplied by the University Registrar and posted on the intranet.

Once the student has completed the work, the instructor must submit a Change of Grade form to the Office of the Registrar. Instructors reserve the right to require that work be submitted prior to the sixth-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 (e.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.

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 (students who register for less than 12 credits in a semester should refer to Academic Recognition of Part-time Students below)
- 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 nine credits at Carlow, including the semester in question
- Enrollment in nine credits for the semester in question
- A GPA of 3.5 or above for the semester in question

VALEDICTORIAN and SALUTATORIAN

One valedictorian and one salutatorian are selected each Commencement ceremony from all eligible students in the graduating baccalaureate class. The distinction of valedictorian is given to the candidate who has achieved the highest level of academic performance in their Commencement class and the salutatorian distinction is the candidate who ranks second in scholarship. Criteria are based primarily on cumulative grade point average and number of credits completed in residence at Carlow University. In the event that more than one student may qualify for the valedictorian distinction, no salutatorian is selected.

Eligibility criteria:

- Candidates must have completed all graduation requirements or a designated official has verified that candidate anticipates completing all graduation requirements for the Commencement ceremony.
- Candidates must have completed at least fifty credits for which letter grades were earned in residence at Carlow University.
- The cumulative grade point average that is used in the determination of candidacy is calculated using the cumulative GPA determined at the end of CAP III for the May Commencement ceremony.

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 the intranet.

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 withdraw or take a leave of absence from the University must complete a Withdrawal/Leave of Absence form and submit it to the Office of the Registrar. The withdrawal form is available in the Student Hub and on myCarlow. 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 taking a leave of absence or withdrawing due to military activation must contact the Office of the Registrar.

- To receive WD's for their courses, a student must submit the Withdrawal/Leave of Absence form by the posted course withdrawal deadlines. If a student submits the form after the course withdrawal deadline, they will receive the letter grades they earned for their courses. Grades of students who do not complete a course and who have not withdrawn officially will be listed as F.
- Students who are considering withdrawal should investigate the financial and student aid implications prior to any action by contacting the Financial Aid and/or Student Accounts Office.
- Financial aid recipients are urged to contact the Financial Aid Office to determine how financial aid amounts will be affected by any withdrawal. Also, please review the Federal Title IV Aid Return of Funds Policy to determine how loans and grants will be recalculated.
- For complete withdrawal from all classes in a semester, final determination of tuition and fee 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 contacting the Office of the Registrar or by submitting the withdrawal form.
- 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.
- See below for the schedule of refunds of tuition, fees, room and board.

ADD/DROP

Students adding or dropping a class(es), but who are still enrolled at the University must submit the Change of Registration form available in the Student Hub or on the intranet. See below for the schedule of refunds of charges. *Graduate students and undergraduate students at the sophomore level and above can also make changes in registration prior to add/drop deadlines online. 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, or the drop is completed by the student online.

Financial aid recipients are urged to contact the Financial Aid Office to determine how financial aid amounts will be affected by a change in credit load.

Full-time status for undergraduate students is at least 12 credits. Full-time status for graduate students is at least 6 credits. Dropping below full-time status will have financial aid implications.

Students wishing to withdraw from the residence hall must contact the Residence Life office. Refunds of room and board charges are governed by the Housing and Food Service Agreement signed by the student for the academic year. Housing deposits are non-refundable.

REFUND OF TUITION AND FEE CHARGES

Accelerated Courses (CAP or WEC formats with Section #s CA to CZ, WA to WZ, GA to GZ) excluding MFF courses.

- Students can add or drop a course(s), or completely withdraw from all courses, through midnight on the day before the second class meeting time.
- Students dropping a course(s) prior to the second class meeting time will receive 100% refund of all charges.
- Students dropping a course(s) OR completely withdrawing from all courses after the second class meeting time will have no refund of charges.
- New students dropping all courses prior to the second class meeting time will be considered a "cancel" and will receive 100% refund of all charges. No academic record will be created for cancelled students.
- For accelerated courses with no scheduled meeting dates including online courses with WEB location, students can add or drop a course(s) through midnight of the 10th day of the accelerated session.

Accelerated Courses in the MFF program with Section #01 to 32

- Students can add or drop a course(s) through midnight on Day 5 and receive 100% refund of charges. Drops or withdrawals after that date will result in no refund of charges.

Semester Courses (Undergrad and Grad Day formats with Section #s DA to DZ or G1, G2...)

- Students can add or drop a course(s) through midnight on Day 14 of the Day course calendar.
- Students dropping a course(s) or completely withdrawing prior to midnight on Day 14 will receive 100% refund of all charges.
- Students dropping a course(s) after Day 14, and who are still enrolled in the semester for other courses, will have no refund of charges.
- New students dropping all courses prior to midnight on Day 14 of the day course calendar will be considered a "cancel" and will receive 100% refund of all charges. No academic record will be created for cancelled students.
- Students who completely withdraw and drop all courses in a semester from Day 15 to Day 21 will receive a 75% refund of tuition and fees.
- Students who completely withdraw and drop all courses in a semester from Day 22 to Day 28 will receive a 50% refund of tuition and fees.
- Students who completely withdraw and drop all courses in a semester from Day 29 to Day 35 will receive a 25% refund of tuition and fees.
- Students who completely withdraw and drop all courses in a semester from Day 36 to the end of the semester will receive no refund of charges.

For specific semester dates, please refer to the Add/Drop/WD Deadline Grid on the intranet.

REFUND OF ROOM AND BOARD CHARGES

Students who withdraw from the University within the first 14 days of the semester are charged \$50 per day for the number of days residing in the residence hall. Beginning Day 15, the room and board charges are refunded following the tuition and fee refund schedule.

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.

A student can take the grade they have earned to date in the class provided that the student has completed at least 75 percent of the course work, has a passing grade in the course, and if both the student and faculty agree with this option. A student selecting this option will not be refunded any tuition or fees and will have their grade processed in the normal manner at the end of the semester with appropriate credits and grade awarded.

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 percent of the course work, has a passing grade in the course, and if both 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 returning 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 student will be withdrawn from the course(s) with an "M" grade. 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 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 withdraws due to active duty will be released from their housing contract for room and board. Fees will be refunded for the term in which they have withdrawn.

APPEALS

In cases where a student misses the course drop or withdrawal deadline due to extenuating or mitigating circumstances, such as a death in the family, injury, sudden severe illness, or accident, may appeal for a late drop or late withdrawal. Students must complete an online appeal form, available on myCarlow. The appeal is reviewed by the Appeals and Grievance committee, which consists of representatives from Academic Affairs, Admissions, Financial Aid, Student Accounts, Student Affairs, and the faculty. The student will receive an email with the appeal decision within 30 days of submission. All decisions made by the Committee are final.

TUITION AND FEES

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

STUDENT ACCOUNTS PAYMENT POLICIES

Each semester, payment is due by the due date published on myCarlow and in the invoice inserts. 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 any previous and/or upcoming semesters 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 \$2000 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 33 1/3% of the balance due, and be reported to credit reporting agencies.

CARLOW UNIVERSITY CREDIT HOUR POLICY AND COURSE METHODS

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 run 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 workload 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:

- 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,
- 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 three-semester 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:

- Onsite—All classes meet at a site (can be a combination of campus and another site, ex. Clinical Rotation or Student Teaching).
- Hybrid—Online meetings reduce the number of face-to-face meetings. Hybrid courses will have meeting dates onsite.
- Online—All content is delivered online. There are no required face-to-face meetings.

Levels of synchronicity:

- 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.
- 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.
- 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 (in real time) for a 3-credit lecture or seminar course. 0 but less than 21 hours for CAP/WEC college format.
- Completely Asynchronous—The faculty member and students do not meet in real time together. This would be a pure online section with no real-time meetings.

Instructional formats: Clinical, Externship, Field Placement, Independent Study, Internship, Lab, Lecture, Practicum, Seminar, Student Teaching, Studio, Thesis, Tutorial

CARLOW UNIVERSITY CREDIT HOUR REQUIREMENTS

Method of attributing credits per course:

Undergraduate credits are assigned per semester as follows:

- Lecture/Seminar
3 credits. 1 hour of classroom instruction and 2 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 courses
3 hours per week over an 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.
- Doctor of Nursing Practicum
1 credit = 200 hours
- 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.
- Physical Therapy Clinical
1 credit per 80 hours of clinical contact
- Occupational Therapy Clinical
1 credit per 90 hours of clinical contact

Credit Hours for Online, Hybrid, and Accelerated Courses

Credit hours for online or hybrid learning courses, as well as accelerated 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 the new course development. For accelerated courses, faculty must also document, through their extended syllabi, how CAP 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

- LMS/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 (instructor expectation of time spent reviewing and commenting on 'posters' or presentation)
- Instructor-guided research activities (instructor expectation of time to be spent)
- Low-stakes quizzes used as comprehension checkers (instructor estimation of time spent)
- Preparation for examinations (instructor estimation of time to be spent)
- Discussion question preparation (instructor estimation of time spent)
- Homework/Working Problems time (instructor 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 help 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 1 hour in class the student will have 2 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

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 their 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. Note: Some majors embed the Compass requirements within the major. A student's progress screen in Self Service will indicate the required Compass courses for their program.

CARLOW COMPASS REQUIREMENTS: FIRST YEAR

CTC 101 Connecting to Carlow: This course introduces students to the Carlow University curriculum, vision, mission, and resources. It

focuses on academic preparation for transitioning to college and transitioning to Carlow specifically. 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 consider the connection between the liberal arts, their major, and career-readiness. Required of all traditional first year students regardless of number of credits transferred. 1 credit

[CE] 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

[CA] 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

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

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, graphic 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

SKW 101 Foundations of Writing I: This course is designed for students to learn rhetorical terminology and concepts to describe and practice writing for a variety of audiences, genres, and technologies. Students will develop their own writing process for drafting, evaluating, revising, and editing their work. This course emphasizes critical reading of college-level texts and the development of information literacy skills. These skills include reading, summarizing, and evaluating sources for relevance and reliability (information literacy). Students will develop knowledge of and practice the fundamentals of grammar, punctuation, sentence and paragraph structures and will develop an understanding of the fundamentals of MLA and APA documentation style and formatting. Students who successfully complete this course will be prepared to take SKW102 Foundations of Writing II. 3 credits

SKW 102 Foundations of Writing II: This course will build on strong critical reading and thinking skills and is designed for students to deepen their understanding of rhetorical terminology and concepts to describe and practice writing for a variety of audiences, genres, technologies and particularly in their disciplines. Students will strengthen their own writing process for drafting, evaluating, revising, and editing their work. Students will determine strategies for reading a range of advanced college-level texts and identify the questions, problems and evidence that define disciplines, particularly their own. This course emphasizes advanced research skills including reading, summarizing, and evaluating sources for relevance and reliability. Students will strengthen their knowledge of the fundamentals of grammar, punctuation, sentence and paragraph structures and will cultivate a strong and effective use of citation systems typical of their field or discipline. All of these skills culminate in a final portfolio. 3 credits
PREREQUISITE: SKW101

CARLOW COMPASS REQUIREMENTS: SOPHOMORE, JUNIOR, SENIOR YEARS

Liberal Arts Breadth Requirement: (15-27 credits total): Students are required to complete two courses in different liberal arts disciplines in each of the following categories: Expression, Natural World, Social Justice, and Wisdom.

- Expression: One 100- or 200-level course from two different liberal arts disciplines from the following: Art, English, Music, Theatre. Each course must be at least 1.5 credits and a minimum of 3 total credits must be taken to fulfill the 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. Each course must be at least 1.5 credits and a minimum of 3 total credits must be taken to fulfill the 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. Each course must be at least 1.5 credits and a minimum of 3 total credits must be taken to fulfill the 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, or foreign language. Each course must be at least 1.5 credits and a minimum of 3 total credits must be taken to fulfill the 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 have 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 discipline. 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

Anchor Course: All students are required to complete an anchor course, which is usually completed in the 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 2017. 3 credits

CARLOW COMPASS REQUIREMENTS: SENIOR YEAR

Senior Capstone: All students are required to complete a senior capstone experience. In this culminating experience, students will draw from and integrate the foundational skills they built through their experiences in Compass Curriculum within the practice of their major discipline. Students should consult with their major advisor regarding this requirement. The specifications for the Senior Capstone experience are at the discretion of each major. Minimum 1 credit

CARLOW COMPASS REQUIREMENTS FOR ASSOCIATE DEGREES

Students in an associate degree program at Carlow take an abbreviated curriculum to meet their Compass requirements. The following are required (see above for descriptions):

- CTC101 (1 credit)
- Choose three skills courses between SKC 101, SKQ 101, SKW 101, and SKW 102 (9 credits)
- Breadth courses (12 credits)
 - One experience from each of the four quadrants: Natural World, Expression, Social Justice, Wisdom
- Contemplation & Action (Any course with 149 course number). This course may also count in Breadth. This requirement is not waived for students entering at sophomore level (24+ credits).
- Total of 22-25 credits

MAJOR FIELD OF STUDY

All students must select a major field of study 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 number 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.

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.

Minor Courses: Students may select a minor that consists of 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 University). Departments provide information on minors and approve students' course selections. Minors are optional.

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 academic requirements include:

- An honors designated section of Connecting to Carlow.
- One honors designated section of either SKC 101 or SKW 102.
- Two IS-498, Honors Projects (.5 credits each). Completion of the honors project will be done in conjunction with an existing three-credit course of the student's choosing. Students are required to work with a faculty member to design and execute a scholarly project comprised of agreed-upon assignments that will qualify the course for honors designation. Projects can be research-based, experiential, service-learning, creative expression and more.
- In addition to the academic components of the program, students are required to complete one experiential learning opportunity each academic year. These experiential learning opportunities include undergraduate research, student leadership, travel abroad and service learning. Students will also have opportunities for enhanced extracurricular experiences, including attending local cultural events or speakers and program-sponsored trips. Honors students receive advising and mentorship from faculty and the Honors director.

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.

Incoming first-year students are invited to submit a separate application to the Honors Program, which includes an essay. The application, essay, and high school records are then used to evaluate the student's candidacy. The Honors Program is limited to 20 students per entering class; therefore, students may be placed on a waiting list if not originally awarded a spot in the program. The application deadline for the Honors Program is typically around February 1 and is a process facilitated by the Office of Admissions in conjunction with the Honors Program Director.

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.

PE 104 Aerobics

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

This course gives college credit for student athletes participating in the varsity sports of basketball, soccer, cross-country, softball, tennis, golf, track and field, and volleyball. Students listed on the official team roster are permitted to register for this course. Questions about a student's eligibility to register for this credit should go to the director of athletics. Students who wish to participate in intercollegiate athletics and who have not been recruited to the team by the coaching staff must try out for the team and meet all requirements for team participation as determined by the head coaches and Director of Athletics. Students can take PE 200 for up to 8 credits total (limit of 1 credit per semester, 2 credits per academic year). 1 credit

PE 240 Advanced Weight Training

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

COLLEGE OF ARTS AND SCIENCES

DEPARTMENT OF ART, COMMUNICATION, AND ENGLISH

MAJORS

- Art
- Art with specializations in:
 - Art History
 - Ceramics
 - Graphic Design
 - Media Arts and Animation
 - Painting and Drawing
- Art Therapy Preparation
- Art with Art Education Certification (K-12)
- Communication
- Communication with specializations in:
 - Advocacy and Social Change
 - Digital Media
 - Organizational Management
- Creative Writing
- English
- English/Secondary Education
- General Studies
- Liberal Studies

MINORS

- Art
- Art History
- Art Therapy Preparation
- Ceramics
- Communication
- Creative Writing
- Digital Storytelling
- English
- Modern Languages
- Musical Arts
- Painting and Drawing
- Theatre
- Theology
- Women's and Gender Studies

PROGRAMS

- Accelerated Program to MA in Art
- Early Assurance Agreement with University of Pittsburgh Graduate School of Public and International Affairs Masters Programs

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 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.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 227, AR 240, AR 268, AR 313, AR 315, AR 331 or AR 331SL, AR 355, AR 421, AR 450; Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344; 12 credits of AR 330; 3-credit Art elective in consultation with your advisor

ART HISTORY CONCENTRATION

The art history concentration is in many ways unique in that it is a studio-based program that 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.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 115, AR 168, AR/WS 209, AR 240, AR 268, AR 307, AR 313, AR 330, AR 331 or 331SL, AR 355, AR 421, AR 450, EN 200, CM 382, WS 320; Choose one of the following: AR 266, AR 321, AR 381, or AR 344; Plus 6 credits of Art History electives in consultation with your advisor

CERAMICS CONCENTRATION

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.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 240, AR 268, AR 313, AR 315, AR 331 or AR 331SL, AR 355, AR 421, AR 450. Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344, plus 18 credits of AR 330 (Ceramics Studio)

GRAPHIC DESIGN CONCENTRATION

In today's ever-changing world, technical proficiency alone is rarely enough for success. Combine the strength of a diverse liberal arts framework and graphic design education with a strong foundation in art. Students in the Art/Graphic Design program go beyond mere graphic design proficiency to a well-rounded education. The Art Department offers a robust and flexible curriculum that provides students with strong foundational skills and allows for an in-depth exploration in Graphic Design. Courses are structured to promote and instill critical and creative thinking skills, personal vision, and literacy in the visual language.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 240, AR 268, AR 313, AR 315, AR 330, AR 331 or AR 331SL, AR 340, AR 355, AR 421 and AR 450; AR 342 or IT 235; CM 240, CM 360, or CM-382; Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344; In consultation with your advisor select an Art History or Media Studies elective (AR/CM/EN/WS subject).

MEDIA ARTS AND ANIMATION CONCENTRATION

Media Arts and Animation encompasses artworks created with new media technologies, including digital art, computer graphics, computer animation, virtual art, internet art, interactive art, video games, and computer robotics. Exciting opportunities such as animation artist, special effects artist, broadcast graphics designer, and video postproduction artist are at the forefront of an industry that repackages information in creative new ways. Under the guidance of an industry-experienced faculty, students examine advanced 2-D animation and 3-D animation principles, as well as story development, background design, scenic layout, and special effects. They will also have an opportunity to work with program specific software such as Adobe Photoshop, Adobe After Effects, and Autodesk 3Ds Max.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 240, AR 268, AR 313, AR 315, AR 330, AR 331 or AR 331SL, AR 355, AR 381, AR 383, AR 386 or AR 387, AR 421, AR 450; Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344; In consultation with your advisor select an Art History or Media Studies elective (AR/CM/EN/WS subject).

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.

Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 227, AR 240, AR 268, AR 313, AR 315, AR 331 or AR 331SL, AR 355, AR 421, AR 450. Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344, plus 15 credits of AR 330 (Painting Studio)

ART THERAPY PREPARATION MAJOR

Art Therapy Preparation is an interdisciplinary major sponsored by the Art and the Psychology & Counseling programs. 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.

Requirements: AE 326, AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 227, AR 240, AR 268, AR 313, AR 315, AR 330, AR 331 or 331SL, AR 355, AR 421, AT 205, AT 339, AT 406 or PY 450, PY 101, PY 122, PY 203, PY 209, PY 285; Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344

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 42 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-12.

Art Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 209, AR 222, AR 227, AR 240, AR 268, AR 313, AR 315, AR 330, AR 331 or AR 331SL, AR 355, AR 421. Choose 3 credits from AR 168, AR 266, AR 321, AR 381 or AR 344.

Education Requirements: AE 326, AE 327, AE 409, AE 410, EC 200, ED 200, ED 282, ED 307, PY 101, PY 206, SPED 230SL, SPED 360, two math (quantitative reasoning and MAT 110 or higher) and two English courses (one composition course and one literature course).

ACCELERATED PROGRAM TO MA IN ART

Undergraduate students majoring in Art with specializations in Painting/Drawing or Ceramics are invited to apply to Carlow's Master of Arts in Art program prior to graduation. Juniors and seniors admitted to this program may be permitted to take up to nine credits of AR730, Advanced Projects, while they are still undergraduate students.

To be given graduate credit, all graduate courses must be passed with a B- or above. These 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 undergraduate credit even if the student earns a C-.

This opportunity can save students time and money if they are planning to apply for admission to Carlow's MA in Art 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.

Admission to the accelerated program may not be retroactive, it must be approved and in place before registration for the courses to be included.

In order to begin MA courses, you must:

- Major in Art with specializations in Painting/Drawing or Ceramics
- Hold junior or senior status
- Achieve a cumulative GPA of 3.0 while at Carlow
- Meet Carlow residency requirements (minimum 18 AR credits at Carlow and appropriate overall credits at Carlow)
- Achieve a minimum grade of B in the MPC courses to continue in the program
- Obtain undergraduate advisor's approval
- Submit application materials by contacting the MA director
- Obtain approval of MA director

Final and full admission to the MA in Art depends upon a portfolio and transcript review upon completion of the undergraduate degree

from Carlow.

COMMUNICATION MAJOR

The major in Communication prepares you for 21st-century careers in various areas of communication practice and leads to a Bachelor of Arts degree. Our curriculum prepares you to both create and critique messages so that you are able to advocate for organizations, clients, and causes. The Communication major provides you with the knowledge and skills that every employer values: excellent written, oral, and digital communication skills along with a strong foundation in communication theories, strategies, and ethics.

This major is designed for students who seek to use their communication expertise in a variety of dynamic careers in marketing communication, media writing, social media, public relations, event planning, human resources, and other communication specialties. Graduates find positions in media, business, and government, and are also prepared for study in a variety of graduate programs. Students also engage in exciting internship opportunities with corporations, hospitals, museums, non-profits, government, and in advertising and public relations firms.

Requirements: CM 104, CM 120, CM 200, CM 210, CM 232, CM 242, CM 300, CM 405, CM 421/SSC 321, CM 450, CM 457, and PY 320 or PY 325 plus 15 credits of additional Communication electives in consultation with an advisor

All credits taken in major courses must be completed with a minimum grade of C.

Optional Areas of Concentration

Communication students are encouraged to pursue an area of concentration in Advocacy and Social Change, Digital Media, or Organizational Management. While the concentration provides an area of in-depth focus, note that all communication students take a set of shared required courses so that regardless of concentration, they will have some experience in all of these areas.

COMMUNICATION WITH CONCENTRATION IN ADVOCACY AND SOCIAL CHANGE

The Communication major with an Advocacy and Social Change concentration is designed for students interested in how communication relates to social policy and advocacy in areas such as gender, race and ethnicity, poverty, immigration, education equality, and healthcare.

Requirements: CM 104, CM 120, CM 200, CM 210, CM 232, CM 242, CM 300, CM 405, CM 421/SSC 321, CM 450, CM 457, and PY 320 or PY 325 plus six credits in CM electives. Advocacy/Social Change coursework: POL 101, POL 287, Choose 4 of the following: CM 255, CM 310SL, CM 325, CM 370, CM 425, DTAN 101, EN/WS 233I, EN/WD 300I, WD 235SL, any POL course 200 level or higher

All credits taken in major courses must be completed with a minimum grade of C.

COMMUNICATION WITH CONCENTRATION IN DIGITAL MEDIA

The Communication major with a Digital Media concentration focuses on how traditional and social media are used in professional, personal, and civic life, and offers opportunities to create digital media content.

Requirements: CM 104, CM 120, CM 200, CM 210, CM 232, CM 242, CM 300, CM 405, CM 421/SSC 321, CM 450, CM 457, and PY 320 or PY 325 plus six credits in CM electives. Digital Media coursework: CM 260, AR 355, AR 381, AR/CM/EN 307 or AR 380, CM/EN 360, CM/BSM 382

All credits taken in major courses must be completed with a minimum grade of C.

COMMUNICATION WITH CONCENTRATION IN ORGANIZATIONAL MANAGEMENT

The Communication major with an Organizational Management concentration includes several courses from the Business Management program to allow students a focus on organizational theory and business practices as they relate to communication practices.

Requirements: CM 104, CM 120, CM 200, CM 210, CM 232, CM 242, CM 300, CM 320, CM 405, CM 421/SSC 321, CM 450, CM 457, and PY 320 or PY 325 plus six credits in CM electives, BSM 103, BSM/CM 202, BSM 203, BSM 301, BSM 410

All credits taken in major courses must be completed with a minimum grade of C.

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 workshoping 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), the Red Dog 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 2331, 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
 - Note: Students can elect to take 9 credits in one area and 3 credits in another area.

ENGLISH MAJOR

The English major provides a strong foundation in global literature and writers from multiple cultural backgrounds. Students who major in English have the flexibility to focus on additional areas of interest by taking a variety of electives, pursuing a double major in or minor in Creative Writing, or by pursuing a major or a minor in a variety of other disciplines. Many major courses highlight women writers' and writers of color and their contributions to the history of literature. In the recently added 4 + 1 option, students can earn a Bachelor of Arts Degree in English and master's degree in Secondary Education in five years.

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.

Writing and Professional Skills: 4 classes for 10 credits

Students take four classes to develop their writing and research skills beyond SKW 101 and SKW 102.

- EN 102: Introduction to Writing and Research about Literature
- One 200 or 300-level EN writing course selected from the following:
 - EN 180, EN 200, EN 205, EN 208, EN 216, EN 217, EN 243, EN 244, EN/CM 260, EN 290, EN 334, EN 239, EN 241, EN 242, EN 346, EN 347SL, EN 348, EN361/CM 360, EN 331, EN 343, EN 344
- EN 444: Senior English Project (Major Capstone course)
- Internship for 1 credit

Tradition and Influence: 2 classes for 6 credits

Students take two of the following classes to develop their knowledge of literary traditions that contemporary writers challenge or expand.

- EN 207: Chaucer
- EN 265: Myths and Monsters
- EN 270: Survey of English Literature I
- EN 305: Survey of American Literature I
- EN 301: Shakespeare in the 21st Century
- EN 319: Victorian Writers

Global Perspectives and Social Justice: 5 classes for 15 credits

Students take five of the following classes to enhance their knowledge of literary texts and languages that reflect global perspectives and explore social justice issues. These courses enact Carlow's commitment to a more just and merciful world.

- EN 219: Literature in Translation
- EN 221: Crime Fiction
- EN 225: Peace/Justice in American Literature
- EN/WS 233: Visions of Social Change: Global Women's Writing (also fulfills Anchor requirement)
- EN 271: Survey of English Literature II
- EN/WS 300I: Environmental Justice (also fulfills Ethics and Social Responsibility requirement)
- EN 306: Survey of American Literature II
- EN 310: Irish Literature
- EN 320: Modern British Writers
- EN 321: American Novel, EN 322: American Drama, or EN 323: American Poetry
- EN 340: World Literature
- EN 400: Independent study on an international writer
- Foreign language classes (may include one American Sign Language class)
- Study Abroad for academic or service-learning credit

English Electives: 3 classes for 9 credits

Students take three English classes in addition to those used to meet the requirements above.

ENGLISH MAJOR – SECONDARY EDUCATION

The Secondary Education program prepares prospective teachers of grades 7 through 12 in the content areas of biology, chemistry, English, mathematics, and social studies. Foundational to the Secondary Certification Program and Carlow's Scholar-Practitioner Framework is the emphasis on the role of reflection in promoting teachers' awareness of their own developing pedagogy and curricular insights as they learn about current theory and practice regarding the teaching of content area subjects and how to create positive learning environments for adolescent learners. Alongside the development of pedagogical content knowledge, the program aims to prepare culturally responsive and antiracist educators who are aware of the psychological, sociological, and political aspects of teaching and learning. This is all done through a purposeful progression of content area and education courses and field work that prepares future teachers to enter the classroom to meet the needs of today's students.

English Requirements:

- **Writing and Professional Skills:** EN-102, EN-220, EN-405, and one 200 or 300-level EN writing course selected from the following: EN 200, EN 205, EN 208, EN 216, EN 217, EN 243, EN 244, EN/CM 260, EN 290, EN 334, EN 239, EN 241, EN 242, EN 346, EN 347SL, EN 348, EN361/CM 360, EN 331, EN 343, EN 344
- **Tradition and Influence:** Take two classes from the following: EN 207: Chaucer, EN 265: Myths and Monsters, EN 270: Survey of English Literature I, EN 305: Survey of American Literature I, EN 301: Shakespeare in the 21st Century, and EN 319: Victorian Writers
- **Global Perspectives and Social Justice:** Take EN-233I, EN-300I, and 3 classes from the following: EN 219: Literature in Translation, EN 221: Crime Fiction, EN 225: Peace/Justice in American Literature, EN 271: Survey of English Literature II, EN 306: Survey of American Literature II, EN 310: Irish Literature, EN 320: Modern British Writers, EN 321: American Novel, EN 322: American Drama, or EN 323: American Poetry, EN 340: World Literature, and EN 400 Independent Study

Secondary Education Requirements: ED-200, ED-250, ED-282, ED-307, ED-308, PY-101, PY-206, SE-311, SE-350, SE-402, SE-409, SPED-230SL, SPED-332, SPED-474, two math (quantitative reasoning and MAT 110 or higher), and two English courses (one composition course and one literature course)

GENERAL STUDIES MAJOR

The Bachelor of Arts in General Studies is designed for the student who wishes to pursue a university degree grounded in the liberal arts in the most expedient, yet enriching, way possible. The student fulfills the specified Compass required of all Carlow University students but enjoys a maximum degree of flexibility in choosing the remaining courses. It is a viable option for the student with varied interests who wishes, for example, to study the plays of Shakespeare in one course, pursue the theories of economics in another, and focus on biblical interpretation in yet another. A required concentration in one area of study assures that the student will reach a level of progressive depth in a single discipline of their choice. This is also an excellent program for a student who is currently employed but can advance further in the workplace with a university degree. With the help of an advisor, the student can creatively shape the

direction of studies in light of personal and professional goals. This program will be particularly beneficial to students who have decided to exit their original major but who still desire to graduate in a timely manner.

Requirements:

- Students must successfully achieve 120 credits in order to graduate. A minimum 2.0 grade point average is required.
- All students must fulfill the requirements of the Carlow Compass.
- In addition to the Carlow Compass, each student must choose one area of concentration, taking a minimum of 12 credits in one discipline. At least two of those courses must be at the 200 level or higher. Note: Students may not minor in the same subject in which they have a concentration.
- In the last semester, the student will produce a thesis or project that demonstrates integrative thinking and proficiency of the Program of Study outcomes. This will be chosen and completed under the direction of the program advisor.
- The remaining credits needed to reach 120 will be considered electives chosen at the discretion of the student in conjunction with the advisor.

LIBERAL STUDIES MAJOR

A Bachelor of Arts in Liberal Studies provides an ideal major for the creative, independent student who is interested in an interdisciplinary focus. This major takes on the characteristics of a “guided studies” or “directed studies” program whereby the student, working closely with the program advisor, has the opportunity to “create a major” according to personal education and career goals. This major further allows the student to gain significant depth in three 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 also an ideal preparation for students who are planning to pursue studies beyond the bachelor’s degree level. It is especially practical for students who have particular career goals that require in-depth study in more than one academic area. It is an individually designed program of study whereby students choose three minors. At least two minors must be from any of the liberal arts programs. Students may choose one minor in an area outside of the liberal arts programs.

Requirements:

- Minimum 54 credits. The required number of credits for each minor and the particular sequence of courses are determined by the academic program offering the minor.
- Three Minors in Separate Programs of Study
 - The three minors constitute the minimum 54-credit requirement. Two of the chosen minors must be in a Liberal Arts discipline: Art, Art History, Ceramics, Painting/Drawing, Art Therapy, Behavioral Health, Behavioral Neuroscience, Biology, Child Development, Chemistry, Communication, Counseling, Computer Science, Criminology, Crisis & Trauma, Creative Writing, Digital Storytelling, Data Analytics, English, Leadership & Social Change, Labor & Working Class Studies, Mathematics, Modern Languages, Musical Arts, Philosophy, Pre-Law, Public Policy & Leadership, Psychology, Theatre, Theology, Web Design, or Women’s Studies. One minor may be in a professional program: Business Analytics, Business Management, Economics, Healthcare Data Analytics, Healthcare Management, Health Coach, Human Resource Management, Information Technology Management, or Marketing. A student can elect to have all three minors in the Liberal Arts. Students should consult with their advisor on their fields of interest.
- Liberal Studies Thesis (IS 400, 1-4 credits)
 - During the senior year, the student will produce a senior project that reflects the learning outcomes of the program. While this project will be created in conjunction with the program advisor, the student will be free to choose a project faculty director from any of the chosen minor fields.

ART MINOR

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

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

ART HISTORY MINOR

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

ART THERAPY PREPARATION MINOR

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

CERAMICS MINOR

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

COMMUNICATION MINOR

The Communication minor focuses on building and maintaining relationships across diverse groups and cultures. This minor may appeal to you if you are interested in counseling, health professions, psychology, or other fields where interpersonal communication skills are essential. Business students also find a minor in Communication extremely helpful in enhancing their interpersonal skills and their career readiness. The Communication minor can be customized to compliment your academic and career needs.

18 credits: CM120 (required), CM210 (recommended), and four elective courses selected with a Communication academic advisor.

All 18 credits must be completed with a minimum grade of C. At least 6 credits must be completed at the 200 level or higher. At least 9 credits must be completed in residence at Carlow.

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.

DIGITAL STORYTELLING MINOR

Undergraduate students from all majors can add a minor in Digital Storytelling to learn how to tell engaging stories within the multimedia landscape. Students will develop an understanding of journalistic and documentary approaches to storytelling; practice skills in interviewing, writing, research, collaboration and creating thinking; and learn the basics of visual and audio media production.

Digital Storytelling students will create videos, podcasts, blogs, feature stories or other digital content on topics that they are passionate about. At Carlow, we especially encourage narratives about marginalized groups or individuals, who are often overlooked by mainstream media.

The minor requires a total of 18 credits:

- CM 104 Introduction to Media & Society
- CM/EN 260 Writing for Media
- AR/CM/EN 307 Media Criticism
- CM 360 Digital Storytelling
- Two courses in media production taken at Carlow or with another education partner (courses and location must be approved by your minor advisor).

All 18 credits must be completed with a grade of C or higher to earn the minor. Communication majors can overlap a maximum of three (3) courses (9 credits) with major requirements to fulfill the Digital Storytelling minor.

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.

MODERN LANGUAGES MINOR

Students may earn a minor in Modern Languages by taking EN 220 Linguistics plus 15 credits of foreign language study or study abroad coursework. Foreign language study may be accomplished through cross-registration at a PCHE institution or by transfer credit from

another college or university at the time of admission. More information about PCHE is available from the Office of the Registrar. Note: PCHE coursework and study abroad coursework (if taken through a Carlow-approved study abroad program) are not considered transfer credits.

MUSICAL ARTS MINOR

The minor in Musical Arts with an emphasis in social justice is designed to connect academic work with broader social issues and provide students with the theoretical, historical, and practical backgrounds to assist them in becoming ethical leaders committed to a just and merciful world. Through the course work students will examine the nexus relation between music and social justice. Attention will be placed on musicians, communities, and musical works which inspired or reflect social justice activism and public policy changes.

Requirements: MU 102, MU 217, MU 218, MU 240. Choose two of the following: WS 148, WS/EN 233I, WS 300, HS/MU 261, CM 325, AR/CM 307

PAINTING MINOR

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

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 MINOR

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 student comes to this discipline already with a prerequisite: the desire to rest in the depths of holy mystery. The theology minor 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.

The Theology minor is a perfect augment to many majors. Students majoring in the Social Sciences, Education or Nursing have found that theological studies can provide a greater depth as to how and why we care about the many issues in society, education, and health care. Students in the empirical sciences can be enriched by Theology's encompassing approach to the natural world as a window that reveals the presence of divine activity in the cosmos. Finally, students who choose Liberal Studies as a major will find the Theology minor to be an exciting complement to their other minors.

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

WOMEN'S AND GENDER STUDIES MINOR

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.

The Women's and Gender Studies program offers an introductory course, a course in feminist theory, and a course in global perspectives. 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.

Requirements:

- WS 101: Introduction to Women's and Gender Studies 3 credits
- WS/EN 2331: Visions of Social Change: Global Women's Writing 3 credits
- WS 320: Feminist Theories 3 credits
- Two courses (6 credits) from the following: AR-209, AR-322, CM-236, CM-338, EN-300I, HS-205, HS-325I, PH-313I, PH-355, PY-265, SO-230, SO-251, SO-251S, SO-308, SO-310, TH-221, and WS-300I
- One women's studies elective; this course can be a cross-listed course 3 credits

DEPARTMENT OF BIOLOGICAL SCIENCES

MAJORS

- Behavioral Neuroscience - Intraoperative Neurophysiological Monitoring (IONM) Track
- Biology
- Biology with a specialization in Human Biology
- Biology/Secondary Education
- Health Sciences with specializations in:
 - Pre-Occupational Therapy
 - Pre-Physical Therapy
 - Pre-Physician Assistant
 - Pre-Speech-Language Pathology
- Neurodiagnostic Technology (Associate of Science)

MINORS

- Biology

DUAL-DEGREE PROGRAMS

- Accelerated BS in Biology/MS in Cardiovascular Perfusion (with UPMC School of Cardiovascular Perfusion)
- Biology/Biotechnology (4+1 Dual-Degree Program with Duquesne University)
- Biology/Environmental Science and Management (3+2 Dual-Degree Program with Duquesne University)

PRE-PROFESSIONAL PROGRAMS

- Pre-Pharmacy Program with Duquesne University's Mylan School of Pharmacy
- Pre-Med, Pre-Dental, and Pre-Pharmacy Early Acceptance Programs with Lake Erie College of Osteopathic Medicine (LECOM)

ACADEMIC POLICIES

The following policies apply to students in all programs offered through the Department of Biological Sciences.

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 re-establish 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.

BEHAVIORAL NEUROSCIENCE – INTRAOPERATIVE NEUROPHYSIOLOGICAL MONITORING (IONM) MAJOR

The Behavioral Neuroscience major is an interdisciplinary program in neuroscience, building upon the strengths of Carlow's biology, psychology, and chemistry programs. Students receive grounding in all three disciplines, in addition to coursework in neuroscience specifically. Students must choose one of the two possible tracks within the major: Intraoperative Neurophysiological Monitoring (IONM) or Neuropsychology. The IONM track falls under the Department of Biological Sciences. The Neuropsychology track falls under the Department of Psychology, Counseling, and Criminology. For more information on Neuropsychology, please see *Behavioral Neuroscience – Neuropsychology Major* under the Psychology department section.

The Neuroscience with Intraoperative Neurophysiological Monitoring (IONM) track prepares students for a career in IONM. Students are prepared in neuroanatomy, neurophysiology, and neuropharmacology, and finish the degree with instructors at UPMC's Procirca – Center for Clinical Neurophysiology, where they receive instruction and hands-on training in the operating room. This highly specialized training allows students to observe and assist in up to 150 surgical cases to accumulate the clinical hours necessary to take the ABRET's Certification in Neurophysiologic Intraoperative Monitoring (CNIM) Exam to be a certified Surgical Neurophysiologist. Students applying for matriculation to the IONM program must have a grade point average of 3.0 (cumulative) and a minimum grade point average of 3.0 equivalent for science and mathematics courses of study.

Required Courses in Behavioral Neuroscience for Both Tracks:

- NEU-220 Neuroanatomy
- BIO-110 Foundations of Organismal Biology
- BIO-120 Foundations of Molecular and Cell Biology
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- PY-101 Introduction to Psychology
- PY-280 Cognitive Psychology

Additional Required Courses for Neuroscience with Intraoperative Neurophysiological Monitoring (IONM) Track:

- NEU-221 Neurophysiology
- NEU-399 Neuromonitoring Fundamentals
- NEU-401 Introduction to Neuromonitoring for Surgical Procedures
- NEU-402 Neuromonitoring for Advanced Surgical Procedures
- BIO-205 Anatomy & Physiology I
- BIO-206 Anatomy & Physiology II
- BIO-300 Junior Seminar
- CHM-211 Organic Chemistry I
- CHM-213 Organic Chemistry I Lab
- MAT-115 Basic Applied Statistics
- MAT-150 Pre-calculus
- PCS-201 General Physics I
- PCS-203 General Physics I Lab
- PCS-202 General Physics II
- PCS-204 General Physics II Lab

Total credits for Neuroscience with Intraoperative Neurophysiological Monitoring Track: 77 credits

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.

Required Courses for the Biology Major:

- BIO-120 Foundations Cell and Molecular Biology
- BIO-110-Foundations in Organismal Biology
- BIO-250 Genetics
- BIO-255 General Ecology
- BIO-300 Junior Seminar
- BIO-497- Senior Capstone
- Four Advanced Electives from BIO, NEU-220, NEU-221, HSC-220, HSC-221, HSC-222, HSC-223
- MAT-150 Pre-Calculus
- MAT-160 Calculus I

- PCS-201 General Physics I
- PCS-203 General Physics I Lab
- PCS-202 General Physics II
- PCS-204 General Physics II Lab
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- CHM-211 Organic Chemistry I
- CHM-213 Organic Chemistry I Lab
- CHM-212 Organic Chemistry II
- CHM-214 Organic Chemistry II Lab

At least two of the advanced biology electives plus Junior Seminar and Senior Experience must be taken in residence at Carlow University. Electives must be 3 or 4 credits to satisfy this requirement. BIO-157, BIO-201, BIO-202, BIO-207, BIO-208, BIO-217, BIO-227, BIO-230, BIO-307, and BIO-308 cannot be used to fulfill the advanced Biology Elective requirements.

BIOLOGY MAJOR - 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 are chosen in consultation with advisor.

Required Courses for the Human Biology Concentration:

- BIO-120 Foundations Cell and Molecular Biology
- BIO-110-Foundations in Organismal Biology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- BIO-250 Genetics
- BIO-255 General Ecology
- BIO-300 Junior Seminar
- BIO-497 Senior Capstone
- Two Advanced Electives from BIO, NEU-220, NEU-221, HSC-220, HSC-221, HSC-222, HSC-223
- MAT-150 Pre-Calculus
- MAT-160 Calculus I
- PCS-201 General Physics I
- PCS-203 General Physics I Lab
- PCS-202 General Physics II
- PCS-204 General Physics II Lab
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- CHM-211 Organic Chemistry I
- CHM-213 Organic Chemistry I Lab
- CHM-212 Organic Chemistry II
- CHM-214 Organic Chemistry II Lab

At least two of the advanced biology electives plus Junior Seminar and Senior Experience must be taken in residence at Carlow University. Electives must be 3 or 4 credits to satisfy this requirement. BIO-157, BIO-201, BIO-202, BIO-207, BIO-208, BIO-217, BIO-227, BIO-230, BIO-307, and BIO-308 cannot be used to fulfill the advanced Biology Elective requirements.

BIOLOGY MAJOR – SECONDARY EDUCATION

The Secondary Education program prepares prospective teachers of grades 7 through 12 in the content areas of biology, chemistry,

English, mathematics, and social studies. Foundational to the Secondary Certification Program and Carlow's Scholar-Practitioner Framework is the emphasis on the role of reflection in promoting teachers' awareness of their own developing pedagogy and curricular insights as they learn about current theory and practice regarding the teaching of content area subjects and how to create positive learning environments for adolescent learners. Alongside the development of pedagogical content knowledge, the program aims to prepare culturally responsive and antiracist educators who are aware of the psychological, sociological, and political aspects of teaching and learning. This is all done through a purposeful progression of content area and education courses and field work that prepares future teachers to enter the classroom to meet the needs of today's students.

Biology Requirements: BIO-110, BIO-120, BIO-205, BIO-206, BIO-250, BIO-255, CHM-111, CHM-113, CHM-112, CHM-114, CHM-211, CHM-213, MAT-150, PCS-201, PCS-203, PCS-202, and PCS-204

Secondary Education Requirements: ED-200, ED-250, ED-282, ED-307, ED-308, PY-101, PY-206, SE-311, SE-350, SE-402, SE-409, SPED-230SL, SPED-332, SPED-474, two math (quantitative reasoning and MAT 110 or higher), and two English courses (one composition course and one literature course)

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.

Required Courses for the Biology Minor:

- BIO-120 Foundations Cell and Molecular Biology (or transferred equivalent)
- BIO-110-Foundations in Organismal Biology (or transferred equivalent)
- Three advanced biology electives. At least two of the elective courses must be taken in residence at Carlow University

A minimum of 18 total credits is required to complete the minor.

ACCELERATED BS IN BIOLOGY/MS IN CARDIOVASCULAR PERFUSION

In cooperation with the UPMC School of Cardiovascular Perfusion, Carlow offers a five-year program leading to a Bachelor of Science degree in biology and a Master of Science degree in Cardiovascular Perfusion. Perfusionists operate the cardiopulmonary bypass machine during open-heart surgery, coronary artery bypass, heart and lung transplantation, congenital defect repairs, and valve replacements.

The UPMC School of Cardiovascular Perfusion accepts up to 15 students per year. There are two general populations of students who may apply for admission to the program: Carlow University undergraduate students who meet all program prerequisites at Carlow and students who already hold a bachelor's degree and have met all program prerequisites.

For Carlow University undergraduate students, the program requires three academic years at Carlow as a biology major with a 3.5 minimum GPA (3.5 in the sciences) and 18 months of clinical training at UPMC, part of which replaces the traditional senior year. The clinical portion of the perfusion program requires out of town clinical externships, room and board for externships are the responsibility of the student.

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

Required Courses for the Biology Major:

- BIO-120 Foundations Cell and Molecular Biology
- BIO-110-Foundations in Organismal Biology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- BIO-250 Genetics
- BIO-255 General Ecology
- BIO-300 Junior Seminar
- MAT-150 Pre-Calculus
- MAT-160 Calculus I
- PCS-201 General Physics I

- PCS-203 General Physics I Lab
- PCS-202 General Physics II
- PCS-204 General Physics II Lab
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- CHM-211 Organic Chemistry I
- CHM-213 Organic Chemistry I Lab
- CHM-212 Organic Chemistry II
- CHM-214 Organic Chemistry II Lab

Required Courses for the Master of Science in Cardiovascular Perfusion

- PRT 750 Introduction to Perfusion
- PRT 7711 Clinical I Perfusion Systems
- PRT 7712 Clinical I Perfusion Systems Continued
- PRT 775 Hematology
- PRT 778 Renal Anatomy & Physiology
- PRT 779 Cardiovascular Physiology
- PRT 780 Introduction to Cardiovascular Surgery
- PRT 781 Cardiovascular Anatomy
- PRT 782 Pulmonary Anatomy and Physiology
- PRT 783 Electrophysiology
- PRT 7851 Clinical II – Perfusion Procedures
- PRT 7852 Clinical II – Perfusion Procedures Continued
- PRT 787 Medical Physics
- PRT 789 Acquired Pathology
- PRT 793 Congenital Pathology
- PRT 795 Clinical III - Perfusion Conduct
- PRT 797 Clinical Pharmacology
- BIO 739 Pharmacology
- MBA 728 Decision Making for Leaders

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. Biomedical Ethics and Microbiology are recommended. One advanced biology course is waived, as is Senior Experience (BIO 497). Transfer students must complete two full-time semesters in residence at Carlow University prior to being eligible to apply to the clinical portion of the program.

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 from 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.

PRE-PHARMACY PROGRAM WITH DUQUESNE UNIVERSITY'S MYLAN SCHOOL OF PHARMACY

Prospective pharmacy students may attend Carlow University for two (or three) years and then receive preferential consideration for admission into the Doctor of Pharmacy program at the Duquesne University Mylan School of Pharmacy.

NOTE: Admission into the Professional Phase of the Duquesne Pharm.D. program is on a competitive basis.

Professional Doctorate Pathway: Pharm. D. only, no bachelor's degree awarded. 6 years.

- The Pre-Pharmacy Early-Entry Program at Carlow University allows academically qualified students to attend Carlow University for two years of pre-pharmacy coursework before transferring to the Duquesne University Mylan School of Pharmacy for the "professional phase" of their studies.

Bachelor's Degree Pathway: BS in Biology / Pharm.D. 7 years.

- In this option students attend Carlow for three years before transferring to the Duquesne University Mylan School of Pharmacy. After completing their first year at Duquesne, students will be awarded a B.S. degree in Biology by Carlow University.

Candidates for admission into the Carlow University Phase are required to:

- Have earned a high school Grade Point Average (GPA) of 3.00, or higher, on a 4.00 scale
- Demonstrate evidence of leadership potential, community service, and involvement in cocurricular activities
- Provide one letter of recommendation from either a high school teacher or guidance counselor
- An SAT total score of 1050 or higher (testing date prior to or in the month of February 2016)
- An SAT total score of 1130 or higher (testing date after or in the month of March 2016)
- A total score of 24, or higher, on the Math and Critical Reading sections of the ACT

Duquesne University Mylan School of Pharmacy Requirements:

- Candidates for admission to the Duquesne University Mylan School of Pharmacy are required to:
- Have completed the two-year undergraduate Pre-Pharmacy curriculum at Carlow University, including core curriculum requirements
- Have earned a minimum grade of "C" in all Carlow University undergraduate courses
- Have maintained a minimum overall GPA of 2.50 or better in all Carlow University undergraduate courses
- Participate in an interview process with faculty members of the Duquesne University Mylan School of Pharmacy
- Submit a letter of recommendation from the Carlow University Pre-Pharmacy Selection Committee
- Provide evidence of leadership potential and commitment to the pharmacy profession
- Achieve a composite PCAT (Pharmacy College Admission Test) score of 375 or better
- Achieve a GPA of 3.00 or higher for all science and math courses taken at Carlow University and/or achieve a cumulative Grade Point Average of 3.00 or higher in the Pre-Pharmacy Early-Entry Program.

Admission Process for Professional Phase at Duquesne University

- Students should apply to Duquesne University by January 15th of their sophomore year at Carlow University for the doctorate only program, and by January 15 their junior year for the BS in Biology/Pharm.D. program. All applicants will be placed into a pool of Carlow University applicants from which students will be chosen. Once offered acceptance, students will have two weeks to send their enrollment deposit to Duquesne University in order to reserve their space in the program. If that deadline passes without a deposit being received by Duquesne University, the prospective student's space will be given to another student, and they will be placed at the bottom of the applicant wait list.

BIOLOGY/EARLY ACCEPTANCE IN DENTAL, PHARMACY, OSTEOPATHIC MEDICINE (LECOM)

Carlow University students majoring in biology may apply for the early acceptance program with Lake Erie College of Osteopathic Medicine (LECOM). This affiliation allows qualified students to earn a four-year bachelor's degree in biology, chemistry, or behavioral neuroscience from Carlow University and then a Doctor of Osteopathic Medicine (D.O.) degree, a Doctor of Dental Medicine (D.M.D.) degree, or a Doctor of Pharmacy (Pharm.D.) degree from LECOM. The early acceptance program grants academically strong students an opportunity to gain conditionally guaranteed acceptance to LECOM as early as their senior year of high school or during their first or second year at Carlow University. Participation in the program alleviates much of the cost of applying to medical schools, while providing a strong background in scientific and liberal arts courses at Carlow University. After completing their undergraduate education at Carlow University in three or four years (depending on the program chosen), students matriculate for an additional four years at either the main campus in Erie, Pennsylvania or a branch campus in Bradenton, Florida, based on the program to which they are accepted.

Requirements for LECOM Early Acceptance Programs:

- Phase 1: Along with meeting LECOM's admission requirements, students are required to meet Carlow University's prerequisites for approval and recommendation to enter the program: science course GPA of 3.2 or higher, cumulative GPA of 3.4 or higher, and a recommendation of science faculty and/or advisor based on demonstrated integrity and excellence in academic pursuits.
- Phase 2: For Carlow University to approve and recommend students for LECOM matriculation, students must meet the minimum requirements stated by LECOM, and be recommended by Carlow University's science faculty and/or advisor based on demonstrated integrity and excellence in academic pursuits.
- Statement for Enrollment in Pre-Health Professional Programs at Carlow University:
 - Students must declare a single Pre-Health Professional Program they wish to pursue at Carlow University by the start of their 3rd year of enrollment. Students cannot be in two Pre-Health Professional Programs simultaneously. Pre-Health Professional Programs include: LECOM EAPs, Duquesne Pre-Pharmacy, Perfusion, and IONM.

HEALTH SCIENCES MAJOR

The Health Sciences curriculum at Carlow University enables students to prepare for a variety of professional careers available in the Health Sciences. This 3-year program provides students a choice of four-tracks in Pre-Physician's Assistant, Pre-Occupational Therapy, Pre-Physical Therapy, and Pre-Speech and Language Pathology. Each track provides a clear pathway for undergraduate students to continue onto a graduate health science program or pursue employment in various health-related fields. Students who complete the undergraduate program will meet the curricular pre-requisites for admission consideration into Carlow's health science graduate programs, as well as most Health Sciences programs across the country.

Students are required to maintain a minimum 3.25 cumulative GPA throughout the program. If a student falls below the minimum GPA requirement, they will have one semester to recover their GPA. If they fail to meet the GPA requirement for more than one semester, the academic advisor will discuss options, which may extend program completion into a fourth year.

Required Courses in Health Sciences All Tracks:

- HSC-101 Introduction to Health Professions
- HSC-102 Emergency Care and Personal Safety
- HSC-103 Standard Safety Precautions for the Health Care Professional
- HSC-200 Global Health (Service Learning/ Ethics/Social Responsibility)
- HSC-201 Cultural Competence in Health Care
- HSC-300 Health Science Seminar (Anchor)
- CM-370 Communication and Health Care
- HSC-400 Health Science Capstone

Required Courses in Health Sciences Pre-Physician's Assistant Track:

- BIO-120 Foundations Cell and Molecular Biology
- BIO-203 Pathophysiology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- BIO-250 Genetics
- BIO-306 Biochemistry

- BIO-335 Microbiology
- One advanced Biology Elective
- MAT-115 Basic Applied Statistics
- MAT-150 Pre-Calculus
- PY-101 Introduction to Psychology
- PY-122 Life Span Developmental Psychology
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- CHM-211 Organic Chemistry I
- CHM-213 Organic Chemistry I Lab
- CHM-212 Organic Chemistry II
- CHM-214 Organic Chemistry II Lab

Required Courses in Health Sciences Pre-Occupational Therapy Track:

- HSC-220 Physics of the Human Body
- HSC-221 Clinical Kinesiology
- HSC-222 Epidemiology
- HSC-223 Pathology for Rehabilitation
- HSC-320 Introduction to Assessment
- BIO-120 Foundations Cell and Molecular Biology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- BIO-203 Pathophysiology
- BIO-335 Microbiology
- One advanced Biology Elective
- MAT-115 Basic Applied Statistics
- MAT-150 Pre-Calculus
- PY-101 Introduction to Psychology
- PY-122 Life Span Developmental Psychology
- PY-209 Abnormal Psychology
- NEU-220 Neuroanatomy
- NEU-221 Neurophysiology
- SO-152 Introduction to Sociology
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- HIM-102 Medical Terminology I

Required Courses in Health Sciences Pre-Physical Therapy Track:

- HSC-222 Epidemiology
- HSC-223 Pathology for Rehabilitation
- HIM-102 Medical Terminology
- BIO-120 Foundations Cell and Molecular Biology
- BIO-110-Foundations in Organismal Biology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- One advanced Biology Elective
- CHM-111 General Chemistry I
- CHM-113 General Chemistry I Lab
- CHM-112 General Chemistry II
- CHM-114 General Chemistry II Lab
- PY-101 Introduction to Psychology

- PY-122 Life Span Developmental Psychology
- PY-280 Cognitive Psychology
- PCS-201 General Physics I
- PCS-203 General Physics I Lab
- PCS-202 General Physics II
- PCS-204 General Physics II Lab
- MAT-115 Basic Applied Statistics
- MAT-150 Pre-Calculus

Required Courses in Health Sciences Pre-Speech and Language Pathology Track:

- HSC-220 Physics of the Human Body
- HSC-222 Epidemiology
- HSC-223 Pathology for Rehabilitation
- HSC-240 Introduction to Audiology
- HSC-241 Phonetics
- HSC-242 Speech and Hearing Sciences
- EC-318 Communication and Reading Development
- BIO-120 Foundations Cell and Molecular Biology
- BIO-110-Foundations in Organismal Biology
- BIO-203 Pathophysiology
- BIO-205 Anatomy and Physiology I
- BIO-206 Anatomy and Physiology II
- NEU-220 Neuroanatomy
- NEU-221 Neurophysiology
- PH-210 Biomedical Ethics
- PY-101 Introduction to Psychology
- PY-122 Life Span Developmental Psychology
- PY-280 Cognitive Psychology

BIO-157, BIO-201, BIO-202, BIO-207, BIO-208, BIO-217, BIO-227, BIO-230, BIO-307, and BIO-308 cannot be used to fulfill the advanced Biology Elective requirements. Electives must be 3 or 4 credits to satisfy this requirement.

NEURODIAGNOSTIC TECHNOLOGY MAJOR

The Associate of Science in Neurodiagnostic Technology is a 2-year, 69-credit program in partnership with UPMC. This program prepares students with the skill sets necessary to function as competent entry-level neurodiagnostic technologists. The curriculum was developed with the guidance of the American Board or Registration of Electroencephalographic and Evoked Potential Technologists, Inc (ABRET) Neurodiagnostic Credentialing and Accreditation and the Commission on Accreditation of Allied Health Education programs (CAAHEP) and includes high impact and experiential learning opportunities. Students are expected to complete five clinical practica. Student learning outcomes reflect the knowledge and skills students will acquire and enhance as a result of didactic, hands-on laboratory and clinical experiences.

Requirements: NEU 101, NEU 102, NEU 201, NEU 202, NEU 203, NEU 204, NEU 205, NEU 210, HIM 102, MAT 115, PH 210, PY 101, and PY/BIO 230

A minimum of 51 credits for the major must be taken at Carlow.

DEPARTMENT OF BUSINESS MANAGEMENT, ACCOUNTING, AND ETHICS

MAJORS

- Business Management
- Esports Business Management
- Healthcare Data Analytics
- Healthcare Management

- Human Resource Management

MINORS

- Business Analytics
- Business Management
- Economics
- Healthcare Data Analytics
- Healthcare Management
- Human Resource Management
- Information Technology Management
- Labor & Working-Class Studies
- Marketing
- Philosophy
- Pre-Law
- Public Policy and Leadership

CERTIFICATES

- Business Certificate

OTHER PROGRAMS

- 3/3 BA or BS/JD Partnerships between Carlow University and the University of Pittsburgh & Duquesne University Schools of Law
- Early Acceptance Assurance Agreement with the University of Pittsburgh Graduate School of Public and International Affairs (GSPIA)

ACCELERATED PROGRAM

- Accelerated Program to Master of Business Administration

RESIDENCY REQUIREMENT

A student must complete a minimum of 18 credits in the major to earn a bachelor's degree. For associate degrees, the residency requirement varies. See the academic department sections for details. Grade requirement: a student must complete all major, minor, and support courses with a minimum grade of C.

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 advisor

Requirements: BSM 103, ACC/BSM 104, BSM 202, BSM 203, BSM 207, BSM 214, BSM 226, BSM 301, BSM 302, BSM 410, BSM 413 or PH-210, BSM 419, BSM 460, EO 201, EO 202, IT 143, I IT 250SL, MAT 115, and PH 367

ESPORTS BUSINESS MANAGEMENT MAJOR

The Esports Business Management major encompasses a course of study leading to a Bachelor of Science degree providing students with a strong background in this new and exciting career field. The Esports Business Management is the integration of six specific esports courses, as well as business management, human resource management, and accounting courses within a strong liberal arts foundation. Students can opt for a double major by combining Esports Business Management with another discipline by consulting with their advisor. A variety of minors are also available.

Requirements: BSM 103, ACC/BSM 104, BSM 203, BSM 226, BSM 228, BSM 301, BSM 328, BSM 330, BSM 331, BSM 332, BSM 334, BSM 408, BSM 460, IT 143, IT 242, IT 250SL, MAT 115, BSM 413 or PH 210, and PH 367

HEALTHCARE DATA ANALYTICS MAJOR

From the moment you check in to a hospital or medical provider's office, you start generating information. Every interaction, every lab result, x-ray, diagnostic, prescription, diagnosis, or procedure is collected and kept safe and secure, available to you and your providers to establish a cogent medical history to better serve you. But that information can also do so much more.

It is up to the Healthcare Data Analytics specialists to use – and protect – that data in meaningful ways. It is a discipline that combines medicine, business, and information.

Medicine: One way a healthcare data analyst can use data is predictive: does your health history indicate an increased chance of something more serious? Maybe a treatment successfully used on other patients would work on your chronic condition, too. As patients continue along on whatever paths through the healthcare system, the valuable data they create can be used, anonymously, to assist in finding larger trends in the ever-changing health landscape.

Business: These trends do not just matter to the patients affected by them – they matter to the providers and insurers, too. Health data is used to make business function better, to streamline information-gathering technologies, to simplify and secure the health records themselves, or to connect better treatments to more cost-effective practices. A healthcare data analyst is also a business specialist.

Information: Data protection is more and more important with each passing day, and healthcare data professionals are at the front lines of the battle against leaks, hacks, and information mismanagement. They are the people developing and implementing the best practices in keeping patient data safe, secure, and easily accessible.

LEARNING OUTCOMES

Through the very dynamic Healthcare Data Analytics curriculum, students will gain a great level of understanding of the healthcare field, with special focus on the analytical review and use of data in other business areas. This broad, well- rounded understanding of the industry will provide the students with many opportunities in today's and future job markets. At a high level, students are expected to demonstrate proficiency in the following learning areas upon completion of the academic program:

- Applied learning is used by students to demonstrate what they can do with what they know. This is especially critical to the Healthcare Data Analytics field of study.
- Intellectual skills are used by students to think critically and analytically about what they learn, broadening their individual perspectives and experiences.
- Specialized knowledge is the knowledge students demonstrate about the Healthcare Data Analytics field of study, understanding the relevant current issues professionals are addressing today.
- Broad knowledge of the Healthcare Data Analytics field that transcends the typical boundaries of students in the first two years of higher education. This extensive level of understanding of the industry, as well as knowledge gained through the Carlow Compass, will build the foundation for moving into the business sector.
- Healthcare Data Analytics students will be a part of civic learning, which enables them to respond to social, environmental, and economic challenges at local, national, and global levels.
- All Healthcare Data Analytics students will achieve a high level of digital information literacy. This will equip students with the understanding to manage and analyze data in a responsible, safe, ethical, and effective manner. This includes using current tools, technologies, techniques, and best practices to support industry, facilitate research and solve real world problems.

HEALTHCARE DATA ANALYTICS PROGRAM POLICIES

- Healthcare Data Analytics policies are explained fully in the Student Handbook. Refer to that for specific, complete information. The 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:
- Students must earn a final cumulative grade of C or higher (C- is considered unsuccessful) to successfully complete all major 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.
- Students are required to complete internships which will necessitate them to travel to the various sites.
- The 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 program they must complete all the following:
- Successful completion of all curriculum courses with a minimum grade of C or higher. (Grades 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 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 their 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 Office of the Registrar of their fulfillment of all course requirements.

Requirements:

- HIM 101, HIM 102, HIM 202, HIM 203, HIM 204, HIM 205, HIM 206, HIM 301, HIM 302, HIM 303, HIM 401, HIM 402, HIM 403, HIM 404, HIM 405, BIO-307, BIO-308, IT-250SL, MAT-115, NU/POL-420, NU-451, BIO-110 or BIO-157; BIO-201, 205, or 207; BIO-202, 206, or 208; , PH-367
- 1 course from CM-232, CM-370, CM-457
- 1 course from IT-143, IT-242, IT-372

HEALTHCARE MANAGEMENT MAJOR

The Healthcare Management major provides the educational background needed to be competitive in today's healthcare market and 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.

Requirements:

- BSM-103, ACC/ BSM-104, BSM-460, HLT-204, HLT-305, HLT-306, IT-200, IT-250SL, PH367, 1 Biology or Chemistry course, 1 Economics course
- 1 course from: BSM-202, CM-370, CM-232, CM-457
- 1 course from PH-210, HIM-206, NU/POL 420
- 1 course from MAT-115, HIM 303, HIM 302
- 1 course from BSM-226, BSM-301, HIM-301, CM-242, CM-260
- 1 course from BSM-410, HIM-402, HIM-404
- 6 additional credits of electives from: BSM-203, BSM-231, BSM-328, BSM-333, BSM-302, BSM-408, BSM-419, HIM-101, HIM-202, HIM-203, HIM-403, HIM-405, HIM-206, HRIS-101, HRIS-202, IT-143, IT-242, POL-101, POL-287, SW-201, and SW-303

HUMAN RESOURCE MANAGEMENT MAJOR

Students in the Human Resource Management take foundational courses in human resources and psychology to develop skills required for the recruitment, retention, and development of the 21st Century workplace. Students who successfully complete this major are qualified to sit for the Society of Human Resource Professionals (SCHRMP) examinations.

Requirements: BSM 103, ACC/BSM 104, BSM 226, BSM 231, BSM 328, BSM 329, BSM 333, BSM 408, BSM 460, HRIS 101, HRIS 102, IT 250SL, IT143, MAT115, PY 101, PY 122, PY 203 or PY 209, PY 285 or PY 340, BSM 413 or PH 210, and PH 367

BUSINESS ANALYTICS MINOR

Business analytics is the practice of improving business decisions through the use of data analysis and statistics. In this 19-credit minor, students will learn basic business management and finance principles, as well as data analysis and visualization. Students will also select one programming elective in a language of their choice (Python, R, or SQL). At least 9 credits of the minor must be completed at Carlow.

Requirements: DTAN 101, MAT 115, BSM 103, BSM 207, MAT 140 OR MAT 160, and one elective from CSC 101, DTAN 140, or IT 242.

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. At least 9 credits of the minor must be completed at Carlow.

Requirements: BSM 103, BSM 202, BSM 226, BSM 301, BSM 302, and BSM 410.

ECONOMICS MINOR

The Economics minor is intended for students with a strong interest in rigorous economics who are majoring in related fields. For instance, this minor should be attractive for students preparing for an MBA program, preparing for law school, preparing for foreign service, or students who are interested in quantitative data analysis in the social sciences. At least 9 credits of the minor must be completed at Carlow.

Requirements: EO 201, EO 202, EO/ BSM408

Electives: Take four courses from the following list. At least two courses must be at the 200-level or above. Note: Some courses require pre-requisites.

- BSM 207, BSM 306, EO 103, EO 104, HLT 306, HS 198, MAT 115, MAT 160, MAT 260, MAT 360, PH 102, POL 210, POL 260, POL 287, POL 325, PY 340, SW 303

HEALTHCARE DATA ANALYTICS MINOR

Requirements: HIM-101 HIM-202 HIM-203 HIM-206 HIM-301 HIM-302 At least 9 credits of the minor must be completed at Carlow.

HEALTHCARE MANAGEMENT MINOR

Requirements: BSM-226 HIM-101 HIM-206 HLT-204 HLT-305 HLT-306 At least 9 credits of the minor must be completed at Carlow.

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 an interest in this area. A student must complete six courses in Information Technology Management chosen in consultation with an ITM advisor. At least 9 credits of the minor must be completed at Carlow.

Requirements: IT 200, IT 235, IT 242, IT 250SL, IT 372 and one course from ACC 205, CSC-101, DTAN 101, or HRIS 101

HUMAN RESOURCE MANAGEMENT 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 BSM-408, and one additional course from BSM 231, BSM 329, HRIS 101, or HRIS 202. At least 9 credits of the minor must be completed at Carlow.

LABOR & WORKING-CLASS STUDIES MINOR

The Labor & Working-Class Studies minor is an interdisciplinary 18-credit minor which combines a liberal arts discipline, History, and a professional discipline, Human Resource Management. Students will gain an understanding of the dynamics of working-class institutions, including unions, as well as working-class culture and politics and the administrative and ethical issues involved in labor relations and other business decisions. This minor engages students' curiosity about Pittsburgh's rich labor history. It prepares students to become reflective practitioners and compassionate, ethical leaders in a wide range of careers, including business (profit or non-profit); government; education, law, and social work; and labor and community organizing. The curriculum is rooted in Catholic Social Teaching regarding the dignity of work, the value of solidarity, and the essential role of labor's voice in the pursuit of the common good. It is likewise founded on Carlow's values of hospitality and mercy, of inclusion and the need to recognize and challenge unjust structures and dehumanizing situations. At least 9 credits of the minor must be completed at Carlow.

Requirements: HS-198, BSM-408, plus 12 credits of electives in consultation with your minor advisor from the following: BSM-226, BSM-302, BSM-328, BSM-329, BSM-410, EO-103, EO-104, HS-148, HS-204, HS-246, HS/WS-351, HS-354, PH-102

MARKETING MINOR

The Marketing minor provides students with a series of courses that will prepare them to pursue various career paths within the field of marketing. Opportunities in marketing are broad; therefore, the requirements for the minor are designed to give students as much

flexibility across offerings in communication and business. The Marketing minor is particularly beneficial to students who plan to pursue positions in the areas of copywriting, advertising, market analysis, public relations, and social media management. At least 9 credits of the minor must be completed at Carlow.

Requirements: BSM 103, BSM 203, CM 242, BSM 301

Electives: Take 6 credits of electives (at least 3 credits must be 300-level or higher) from the following: BSM 404, BSM 410, BSM 414, BSM 419, and IT 235.

PHILOSOPHY MINOR

As a minor, 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 minor with numerous practical applications. At least 9 credits of the minor must be completed at Carlow.

Requirements: PH-100, PH-105, PH-210, PH-214 and 6 additional credits from Philosophy (PH) in consultation with your advisor. At least 3 of those credits must be 300-level or higher. 18 credits total.

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. At least 9 credits of the minor must be taken at Carlow.

Requirements:

- POL 101, BSM-302, BSM-408, DTAN-101, and BSM-329
- In consultation with their advisor, a student should choose 3 credits of electives from Economics (EO), Data Analytics (DTAN), Mathematics (MAT), English (EN), Public Health (PUH), or Social Work (SW)

PUBLIC POLICY AND LEADERSHIP MINOR

The Public Policy and Leadership minor provides students with the knowledge and skills to understand policy information, implementation, and analysis. Students examine motivations and actions that drive governmental and organizational choices that lead to the formation of policies. Attention is drawn to a balance between individual rights and the responsibility of communities. Students learn to cultivate initiative, entrepreneurship, and leadership.

Requirements:

- POL 101, DTAN-101, BSM329, and SW 201
- In consultation with the minor advisor, a student must choose six credits of electives from Business (BSM), Economics (EO), Data Analytics (DTAN), Mathematics (MAT), Sociology (SO), Social Work (SW), or Women's and Gender Studies (WS)
- Two of the courses must be at the 300 or 400 level.

BUSINESS CERTIFICATE

In partnership with Highmark Wholecare, Carlow University offers a Business Certificate that is designed to help individuals enhance their current skill set while focusing on the business of healthcare. This 12-credit certificate requires the following courses: SKC 101, Communication: Personal to Professional (3 credits); BSM 103, Introduction to Business and Management (3 credits); BSM 202 Business Communication (3 credits); and PUH 101 Introduction to Public Health (3 credits). To qualify for this certificate program, Highmark Wholecare employees must show proof of a high school graduation or equivalent credential (GED, TASC, or HiSET). This can be achieved via confirmation in writing from their employer. Carlow University reserves the right to request an official copy of any transcript. Those who completed college-level courses who would like Carlow University to review these for potential transfer credit should request their previous college/university provide an official transcript to Carlow University. Up to one (1) course may be transferred into the Business Certificate program. Carlow University makes no promises about the transferability of its credits to another institution. Transferability of credits is determined exclusively by each receiving institution. Highmark Wholecare employees interested in pursuing other educational opportunities at Carlow University outside of the Business Certificate would be subject to the

tuition costs associated with that program.

3/3 BA/JD LAW PROGRAMS (DUQUESNE UNIVERSITY AND UNIVERSITY OF PITTSBURGH)

The 3/3 BA/JD or BS/JD provides an expedited path to complete both a bachelor's and a Juris Doctor degree in six years. Carlow maintains 3/3 partnerships with the University of Pittsburgh and Duquesne University Schools of Law.

Qualifications:

Students who wish to be considered for participation in the 3/3 programs must meet the following qualifications:

- Complete 90 credit hours of undergraduate work during their first three years at Carlow University (including all Carlow Compass and major requirements)
- Maintain a cumulative GPA of 3.5 or higher
- Score in the 60th percentile of the LSAT

Students who meet these qualifications will have their applications reviewed by the Director of Pre-Law Advising for recommendation as a 3/3 applicant to the selected law school(s). Recommendation is based upon attainment of the above criteria, other indicia of academic achievement, and preparedness for law school. Final acceptance for admission is at the discretion of the director of admissions at the selected law school(s).

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.

ACCELERATED PROGRAM TO MASTER OF BUSINESS ADMINISTRATION

Undergraduate students with a major in any of the business programs or Respiratory Therapy are invited to apply to Carlow's MBA accelerated 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. Students must enter the MBA program within two years of completion of their bachelor's degree. Student may choose three (3) of the following courses (12 credits):

- MBA 711 Business Writing
- MBA 722 Strategic Analysis
- MBA 732 Financial Planning & Analysis
- MBA 752 Advances in IT and IT Management

Graduate courses will count for graduate credit only if the student earns a B- or higher; graduate courses will count for undergraduate credit if the student earns a C or better.

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. Please review the information on requirements in the Accelerated Programs section above. Final and full admission to the MBA may be granted upon completion of the undergraduate degree from Carlow and fulfillment of any additional criteria.

DEPARTMENT OF COMPUTATIONAL AND CHEMICAL SCIENCES

MAJORS

- Chemistry
- Chemistry/Secondary Education

- Computer Science
- Computer Science with specializations in:
 - Data Science
 - Web Design

MINORS

- Chemistry
- Computer Science
- Data Analytics
- Mathematics
- Web Design

OTHER PROGRAMS

- BS in Chemistry to MEd in Secondary Education
- BS in Chemistry to PharmD (Duquesne University)
- BS in Chemistry and Early Acceptance Program with Lake Erie College of Osteopathic Medicine (LECOM)

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 sub-disciplines of chemistry: organic chemistry, analytical chemistry, physical chemistry, and inorganic chemistry. Laboratory skills are emphasized throughout, including hands-on training in the use of modern chemical instrumentation. 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 chemistry at the high school level may wish to enroll in the 4+1 MED program. Students earn a chemistry degree followed by a one-year master's degree in Secondary Education.

Requirements: 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), Advanced Experimental Techniques (CHM 423), 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), Introduction to Data Analytics (DTAN 101), Junior Seminar (CHM 398 and CHM 399), 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.) If a student chooses chemistry as part of a dual major, the chemistry elective courses are waived, and, with certain dual major programs, the Junior Seminar and Senior Experience courses may count towards both majors.

CHEMISTRY MAJOR – SECONDARY EDUCATION

The Secondary Education program prepares prospective teachers of grades 7 through 12 in the content areas of biology, chemistry, English, mathematics, and social studies. Foundational to the Secondary Certification Program and Carlow's Scholar-Practitioner Framework is the emphasis on the role of reflection in promoting teachers' awareness of their own developing pedagogy and curricular insights as they learn about current theory and practice regarding the teaching of content area subjects and how to create positive learning environments for adolescent learners. Alongside the development of pedagogical content knowledge, the program aims to prepare culturally responsive and antiracist educators who are aware of the psychological, sociological, and political aspects of teaching and learning. This is all done through a purposeful progression of content area and education courses and field work that prepares future teachers to enter the classroom to meet the needs of today's students.

Chemistry Requirements: BIO-120, CHM-111, CHM-113, CHM-112, CHM-114, CHM-211, CHM-213, CHM-212, CHM-214, CHM-311, CHM-312, CHM-411, CHM-412, CHM-423, DTAN-101, MAT-160, MAT-260, MAT-360, PCS-221, PCS-223, PCS-222, and PCS-224

Secondary Education Requirements: ED-200, ED-250, ED-282, ED-307, ED-308, PY-101, PY-206, SE-311, SE-350, SE-402, SE-409, SPED-230SL, SPED-332, SPED-474, two math (quantitative reasoning and MAT 110 or higher), and two English courses (one composition course and one literature course)

PRE-PHARMACY PROGRAM WITH DUQUESNE UNIVERSITY'S MYLAN SCHOOL OF PHARMACY

Prospective pharmacy students may attend Carlow University for two (or three) years and then receive preferential consideration for admission into the Doctor of Pharmacy program at the Duquesne University Mylan School of Pharmacy.

NOTE: Admission into the Professional Phase of the Duquesne Pharm.D. program is on a competitive basis.

Professional Doctorate Pathway: Pharm. D. only, no bachelor's degree awarded. 6 years.

- The Pre-Pharmacy Early-Entry Program at Carlow University allows academically qualified students to attend Carlow University for two years of pre-pharmacy coursework before transferring to the Duquesne University Mylan School of Pharmacy for the "professional phase" of their studies.

Bachelor's Degree Pathway: BS in Biology / Pharm.D. 7 years.

- In this option students attend Carlow for three years before transferring to the Duquesne University Mylan School of Pharmacy. After completing their first year at Duquesne, students will be awarded a B.S. degree in Biology by Carlow University.

Candidates for admission into the Carlow University Phase are required to:

- Have earned a high school Grade Point Average (GPA) of 3.00, or higher, on a 4.00 scale
- Demonstrate evidence of leadership potential, community service, and involvement in cocurricular activities
- Provide one letter of recommendation from either a high school teacher or guidance counselor
- An SAT total score of 1050 or higher (testing date prior to or in the month of February 2016)
- An SAT total score of 1130 or higher (testing date after or in the month of March 2016)
- A total score of 24, or higher, on the Math and Critical Reading sections of the ACT

Duquesne University Mylan School of Pharmacy Requirements:

- Candidates for admission to the Duquesne University Mylan School of Pharmacy are required to:
- Have completed the two-year undergraduate Pre-Pharmacy curriculum at Carlow University, including core curriculum requirements
- Have earned a minimum grade of "C" in all Carlow University undergraduate courses
- Have maintained a minimum overall GPA of 2.50 or better in all Carlow University undergraduate courses
- Participate in an interview process with faculty members of the Duquesne University Mylan School of Pharmacy
- Submit a letter of recommendation from the Carlow University Pre-Pharmacy Selection Committee
- Provide evidence of leadership potential and commitment to the pharmacy profession
- Achieve a composite PCAT (Pharmacy College Admission Test) score of 375 or better
- Achieve a GPA of 3.00 or higher for all science and math courses taken at Carlow University and/or achieve a cumulative Grade Point Average of 3.00 or higher in the Pre-Pharmacy Early-Entry Program.

Admission Process for Professional Phase at Duquesne University

- Students should apply to Duquesne University by January 15th of their sophomore year at Carlow University for the doctorate only program, and by January 15 their junior year for the BS in Biology/Pharm.D. program. All applicants will be placed into a pool of Carlow University applicants from which students will be chosen. Once offered acceptance, students will have two weeks to send their enrollment deposit to Duquesne University in order to reserve their space in the program. If that deadline passes without a deposit being received by Duquesne University, the prospective student's space will be given to another student, and they will be placed at the bottom of the applicant wait list.

CHEMISTRY/EARLY ACCEPTANCE IN DENTAL, PHARMACY, OSTEOPATHIC MEDICINE (LECOM)

Carlow University students majoring in chemistry may apply for the early acceptance program with Lake Erie College of Osteopathic Medicine (LECOM). This affiliation allows qualified students to earn a four-year bachelor's degree in biology, chemistry, or behavioral neuroscience from Carlow University, and then a Doctor of Osteopathic Medicine (D.O.) degree, a Doctor of Dental Medicine (D.M.D.) degree, or a Doctor of Pharmacy (Pharm.D.) degree from LECOM. The early acceptance program grants academically strong students an opportunity to gain conditionally guaranteed acceptance to LECOM as early as their senior year of high school or during their first or second year at Carlow University. Participation in the program alleviates much of the cost of applying to medical schools, while providing a strong background in scientific and liberal arts courses at Carlow University. After completing their undergraduate

education at Carlow University in four years, students matriculate for an additional four years at either the main campus in Erie, Pennsylvania or a branch campus in Bradenton, Florida, based on the program to which they are accepted.

COMPUTER SCIENCE MAJOR

Carlow University offers a Computer Science major that focuses on the skillset of a full-stack developer while emphasizing the importance of liberal arts. Students will learn the necessary technical skills, such as programming and computer hardware design, and the intersection with broader, career-ready skills like communication, cross-cultural design principles, and graphic design. Students who complete this curriculum will build and practice a range of pre-professional computing skills that are necessary and in demand for a variety of careers in a technical field. This curriculum focuses equally on technical skills (proficiency in common programming languages) and more abstract skills (communication, critical thinking, problem solving, and project management). Students may opt to add one of two tracks within the computer science major to specialize their skills further: Data Science or Web Design specializations.

Requirements: CSC-101, CSC-103, CSC-105, CSC-140, CSC-203, CSC-110 or CSC-215, CSC-220, CSC-240, CSC-303, CSC-305, CSC-306, CSC-404, CSC-406, MAT-115, MAT-140 or MAT-160, MAT-398, MAT-399, MAT-498, MAT-499, and two graphic design courses from the following: AR-313, AR-344, AR-355, AR-380, AR-381, and AR-383

DATA SCIENCE SPECIALIZATION

The data science specialization provides students with a background in data analytics and visualization as a complement to their programming skills. This specialization is appropriate for students who wish pursue employment and/or graduate training in data science, scientific communication, big data, business intelligence, or other fields involving data analysis. Students completing the data science specialization will complete all requirements of the computer science major and take an additional four courses in data analytics. Two courses (Introduction to Data Analytics and Data Visualization) are required for this track. Students will also select two additional elective courses from a defined list.

Requirements: CSC-101, CSC-103, CSC-105, CSC-140, CSC-203, CSC-110 or CSC-215, CSC-220, CSC-240, CSC-303, CSC-305, CSC-306, CSC-404, CSC-406, MAT-115, MAT-140 or MAT-160, MAT-398, MAT-399, MAT-498, MAT-499, and two graphic design courses from the following: AR-313, AR-344, AR-355, AR-380, AR-381, and AR-383; DTAN-101, DTAN-220, and two courses from DTAN-140, IT-242, IT-250SL, MAT-260, MAT-302, MAT-321, MAT-360

WEB DESIGN SPECIALIZATION

The web design specialization provides students with a more in-depth study of user interface and user experience (UX) principles. UX is a major component of front-end design, combining concepts from graphic design, data visualization, psychology, and neuroscience. Students completing the web design specialization will complete all requirements of the computer science major and take an additional four courses in graphic design and/or psychology.

Requirements: CSC-101, CSC-103, CSC-105, CSC-140, CSC-203, CSC-110 or CSC-215, CSC-220, CSC-240, CSC-303, CSC-305, CSC-306, CSC-404, CSC-406, MAT-115, MAT-140 or MAT-160, MAT-398, MAT-399, MAT-498, MAT-499, and two graphic design courses from the following: AR-313, AR-344, AR-355, AR-380, AR-381, and AR-383; and four courses from the following: AR-115, AR-340, AR-343, AR-344, AR-355, DTAN-220, PY-101, PY-280

CHEMISTRY MINOR

Requirements: General Chemistry (CHM 111/113 and CHM 112/114) and Organic Chemistry (CHM 211/213 and CHM 212/214), plus an additional five credits of upper-level Chemistry (CHM) courses (at the 200 level or higher).

At all times after the completion of the student's fourth course required within the major (i.e. biology, chemistry, computer science, mathematics, and/or 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.

COMPUTER SCIENCE MINOR

The minor in Computer Science prepares a student for basic computer programming and algorithm design. Students will complete a two-semester sequence in Python programming, as well as basic web design and calculus. The minor also gives students freedom to explore other aspects of computer science through two elective courses within the computer science or information technology curricula.

- Required courses: CSC 101, CSC 103, CSC 105, and MAT 140 or MAT 160.
- Elective courses: Choose two of CSC 203, CSC 215, CSC 306, CSC 404, DTAN 140, IT 242, or MAT 115.

DATA ANALYTICS MINOR

The Data Analytics minor is a 16-credit minor that includes 13 credits of required coursework and 3 credits of electives.

Requirements: DTAN 101, DTAN 220, MAT 115, MAT 140 or MAT 160, Choose one of the following electives: DTAN 140, DTAN 150, CSC 101, CSC 215, or IT 242.

MATHEMATICS MINOR

Requirements: MAT 160, MAT 260, MAT 302, MAT 151 or CSC 110, plus at least two additional upper-level mathematics courses (at least 6 credits). Note: MAT 398/399 and MAT 498/499 do not fulfill this requirement.)

WEB DESIGN MINOR

The minor in Web Design prepares a student to design and deploy a website from scratch. Students will learn HTML, CSS, and JavaScript basics to customize the properties of the website. The minor also explores the basics of user experience and front-end design, as well as accessibility and cross-cultural design techniques.

- Required courses: CSC 105, CSC 140, CSC 240.
- Programming pre-requisite: Choose one of CSC 101 or DTAN 140.
- Web Design elective: Choose one of CSC 305 or CSC 406.
- Graphic Design elective: Choose one of AR 115, AR 355, PY 280, CM/EN 260, CM 360, or BSM 301.

DEPARTMENT OF EDUCATION AND LIBERAL STUDIES

MAJORS

- Early Childhood Education with Certification (PreK-Grade 4)
- Early Childhood Education with Special Education
- Early Development and Learning
- Secondary Education
 - Biology, Chemistry, English, Mathematics, Social Studies
- Special Education
- Deciding

CERTIFICATES

- Autism Spectrum Disorders Endorsement
- Child Development Associate Certificate

CERTIFICATION PROGRAMS

- Art Education Certification (Grades K-12)
- Early Childhood Certification (Pre K-4th Grade)
- Special Education (Grades K-12)

ACCELERATED PROGRAMS

- Accelerated Program to MEd in Art Education
- Accelerated Program to MEd in Early Childhood Education
- Accelerated Program to MEd in Reading Specialist
- Accelerated Program to MEd in Secondary Education

- Accelerated Program to MEd in Special Education

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 scholar-practitioners 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 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 will 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
- 3.0 or higher GPA
- Two college math courses
- Two college English courses (one literature and one composition)
- Passing score on a basic skills exam (PAPA or Core)
- Satisfactory rating on all dispositions instruments

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:

- 3.0 or higher GPA
- Appropriate and current health clearances, criminal history background checks, child abuse history clearance, federal criminal history records (CHRI)
- A completed student teaching application
- Completed Stage III Field Experience
- Satisfactory rating on all dispositions instruments

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 and 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.

Art Requirements: AR 101 or AR 148, AR 102 or AR 149, AR 111, AR 114, AR 115, AR 221 or 221L, AR 227, AR 240, AR 315, AR 321, AR 330, AR 331 or 331SL, AR 355, AR 421, AR/WS 209

Education Requirements: EC 200, ED 200, ED 282, ED 307, AE 326, AE 327, AE 409, AE 410, PY 101, PY 206, SPED 230SL, SPED 390, two math (quantitative reasoning and MAT 110 or higher) and two English courses (one composition course and one literature course).

EARLY CHILDHOOD EDUCATION MAJOR WITH 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 and in feeling 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 healthy child who has the necessary foundation to succeed.

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 relationships.

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 for the young child.
- Develop into ethical stewards who know and understand diverse family and community characteristics,
- and support, engage, and involve families and communities through respectful relationships to support children’s development and learning.
- Be able to effectively and appropriately use a variety of assessment tools (including 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.

Requirements: EC 200, EC 201, EC 303, EC 304, EC 307, EC 311, EC 313, EC 315, EC 318, EC 325, EC 403, EC 406 and EC 407 or EC 410, ED 200, ED 250, ED 282, ED 305, ED 307, ED 312, EL 303, PY 101, SPED 230SL, SPED 332, SPED 450, SPED 474, 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)

Early development and learning majors complete practicum and internship placements in various childcare center and/or information learning environments. Students in 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 and in feeling 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 healthy child who has the necessary foundation to succeed.

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.

Requirements: EC 200, EC 201, EC 207, EC 303, EC 304, EC 307, EC 311, EC 313, EC 315, EC 318, EC 401SL, EC 415, ED 200, ED 305, ED 307, ED 312, PY 101, SPED 230 or 230SL, SPED 450 and 6 credits of early childhood, education, psychology or special education electives

SECONDARY EDUCATION

The Secondary Education program prepares prospective teachers of grades 7 through 12 in the content areas of biology, chemistry, English, mathematics, and social studies. Foundational to the Secondary Certification Program and Carlow’s Scholar-Practitioner Framework is the emphasis on the role of reflection in promoting teachers’ awareness of their own developing pedagogy and curricular insights as they learn about current theory and practice regarding the teaching of content area subjects and how to create positive learning environments for adolescent learners. Alongside the development of pedagogical content knowledge, the program aims to prepare culturally responsive and antiracist educators who are aware of the psychological, sociological, and political aspects of teaching and learning. This is all done through a purposeful progression of content area and education courses and field work that prepares future teachers to enter the classroom to meet the needs of today’s students.

Secondary Education Requirements: ED-200, ED-250, ED-282, ED-307, ED-308, PY-101, PY-206, SE-311, SE-350, SE-402, SE-409, SPED-230SL, SPED-332, SPED-474, two math (quantitative reasoning and MAT 110 or higher), and two English courses (one composition course and one literature course)

In addition to the above secondary education courses, students will take courses in one of the following content areas: Biology, Chemistry, English, Social Studies, or Mathematics:

- Biology Requirements: BIO-110, BIO-120 BIO-205, BIO-206, BIO-250, BIO-255, CHM-111, CHM-113, CHM-112, CHM-114, CHM-211, CHM-213, MAT-150, PCS-201, PCS-203, PCS-202, and PCS-204
- Chemistry Requirements: BIO-120, CHM-111, CHM-113, CHM-112, CHM-114, CHM-211, CHM-213, CHM-212, CHM-214, CHM-311, CHM-312, DTAN-101, MAT-160, MAT-260, MAT-360, PCS-221, PCS-223, PCS-222, and PCS-224
- English Requirements:
 - Writing and Professional Skills: EN-102, EN-220, EN-405, and one 200 or 300-level EN writing course selected from the following: EN 200, EN 205, EN 208, EN 216, EN 217, EN 243, EN 244, EN/CM 260, EN 290, EN 334, EN 239, EN 241, EN 242, EN 346, EN 347SL, EN 348, EN361/CM 360, EN 331, EN 343, EN 344
 - Tradition and Influence: Take two classes from the following: EN 207, EN 265, EN 270, EN 305, EN 301, and EN 319
 - Global Perspectives and Social Justice: Take EN-2331, EN-3001, and 3 classes from the following: EN 219, EN 221, EN 225, EN 271, EN 306, EN 310, EN 320, EN 321, EN 322, EN 323, EN 340, and EN 400
- Mathematics Requirements: MAT-115, MAT-160, MAT-260, MAT-300, MAT-301, MAT-302, MAT-321, MAT-325, MAT-331, and MAT-360.
- Social Studies Requirements: EO-103, EO-202, 2 American History courses, 1 World History course, 2 Political Science courses, 1 Psychology course, and 2 Sociology courses

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 totaling 210 hours in a variety of classrooms and educational settings.

Graduates of the program obtain Pennsylvania Special Education certification in Grades K-12. This can be combined with Early Childhood Education but also exists as a stand-alone major.

Teacher candidates completing the special education program K-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 their practice, particularly the effects of their choices and actions on others (learners, families, other professionals, and the community), and adapt practices to meet the needs of each learner.

Early Childhood Education with Special Education Requirements: Students complete the Early Childhood requirements listed in Early Childhood section plus SPED 332, SPED 336, SPED 360, SPED 451, SPED 452, SPED 460, SPED 470, SPED 474, SPED 476, SPED 478, SPED 490.

Special Education Requirements (stand-alone major): EC-200, EC-303, EC-313, EC-315, EC-318, ED-200, ED-260, ED-282, ED-305, ED-307, ED-312, PY-101, PY-209, PY-280, SPED-230SL, SPED-450, SPED-451, SPED-452, SPED-460, SPED-470, SPED-474, SPED-475, SPED-476, SPED-478, SPED-488, and SPED-490.

AUTISM SPECTRUM DISORDERS ENDORSEMENT 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 PDD-NOS), Asperger 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.

- 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).
- 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.
- 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).
- 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.

CHILD DEVELOPMENT ASSOCIATE CERTIFICATE

The 12-credit Child Development Associate (CDA) Certificate is based on the core set of competency standards that support a high-quality early childhood education. The course work consists of 3 courses, a total of 9 credits in areas including child development, observation & assessment and family & community partnerships. The courses included in the program are EC 201 Introduction to Early Childhood Education, EC 200 Child Development and EC 207 Play As Learning.

Requirements: EC 201, EC 200, and EC 207

ACCELERATED PROGRAMS TO MEd IN ART, EARLY CHILDHOOD, READING SPECIALIST, SECONDARY, OR SPECIAL EDUCATION

Qualified undergraduate education students can take up to 12 graduate level credits as undergraduates toward an MEd in Art, Early Childhood, Secondary, or Special Education. Please talk with an advisor or program director for more information on all accelerated programs.

Requirements for Reading Specialist: READ-721, READ-722, READ-723, READ-724

Requirements for Secondary Education: ED-778, PYM-730, PYM-731, PYM-732.

Requirements for Special Education: SPED-750 SPED-751, SPED-770, SPED-772.

DECIDING

Students who are uncertain about their academic majors are welcome. They are assigned an academic advisor who will help them select classes and identify majors and/or minors that help them achieve their professional goals. Students are strongly encouraged to work with our Office of Career Development for more in-depth information on career planning. Deciding students have until Junior class level standing (54 credits) to declare a major. A registration hold will be placed on a student who has not declared a major by junior status.

DEPARTMENT OF PSYCHOLOGY, COUNSELING, AND CRIMINOLOGY

MAJORS

- Behavioral Neuroscience - Neuropsychology Track
- Criminology
 - with a specialization in Applied Criminal Justice
- Psychology
 - with Concentration in Child Development
 - with Concentration in Counseling
 - with Concentration in Crisis and Trauma
 - with Concentration in Neuropsychology

MINORS

- Behavioral Neuroscience
- Child Development
- Counseling
- Criminology
- Crisis and Trauma
- Psychology

CERTIFICATE

- Family Dynamics Enrichment Certificate

ACCELERATED PROGRAMS

- BA/BS to Master of Science in Fraud and Forensics
- BA/BS to MS in Professional Counseling
- BA/BS to MA in Psychology

OTHER PROGRAMS

- Early Assurance Agreement with University of Pittsburgh Graduate School of Public and International Affairs Masters Programs

BEHAVIORAL NEUROSCIENCE - NEUROPSYCHOLOGY MAJOR

The Behavioral Neuroscience major is an interdisciplinary program in neuroscience, building upon the strengths of Carlow's biology, psychology, and chemistry programs. Students receive grounding in all three disciplines, in addition to coursework in neuroscience specifically. Students must choose one of the two possible tracks within the major: Intraoperative Neurophysiological Monitoring (IONM) or Neuropsychology. The IONM track falls under the Department of Biological Sciences. The Neuropsychology track falls under the Department of Psychology, Counseling, and Criminology. For more information on IONM, please see *Behavioral Neuroscience – Intraoperative Neurophysiological Monitoring (IONM) Major* under Biological Sciences.

The Neuropsychology track prepares students for graduate work in neuropsychology or psychology and, ultimately, a career in either area. Neuropsychologists also study the connection between the brain and behavior; this career option often focuses on assessment of neuropsychological functioning in patients. Students majoring in the Neuropsychology track receive a versatile degree that prepares them for graduate work in psychology and neuropsychology.

Required Courses in Behavioral Neuroscience:

- BIO 110 Foundations of Organismal Biology (4 credits)
- CHM 111/113 General Chemistry I and Lab (4 credits)
- PY 101 Introduction to Psychology (3 credits)
- BIO 120 Foundations of Molecular and Cell Biology (4 credits)
- CHM 112/114 General Chemistry II and Lab (4 credits)
- PY 280 Cognitive Psychology (3 credits)
- NEU 220 Neuroanatomy (4 credits)

Additional Required Courses for Neuropsychology Track:

- NEU 300 Neuropsychology (3 credits)
- PY 230 Biological Bases of Behavior (3 credits)
- PY 290 Elementary Statistics & Lab (4 credits)
- SSC 321 Research Methods (3 credits)
- PY 325 Experimental Psychology (4 credits)
- PY 255 Designing Your Life II (1 credit)
- PY 355 Designing Your Life III (1 credit)
- PY 455 Knowledge of Psychology (1 credit)
- NEU 450 Neuroscience Internship (1-3 credits)

Total credits for Neuropsychology Track: 47-49 credits

ACADEMIC PROGRESS REQUIREMENTS FOR BEHAVIORAL NEUROSCIENCE/NEUROPSYCHOLOGY

- Students must maintain a 3.0 cumulative GPA and a 2.0 term GPA at every term of evaluation (fall, spring, and summer).
 - Students who fail to reach the GPA requirements above will be placed on probation for one term and must meet the minimum requirement by the next term of evaluation.
 - Students who are on probation and fail to meet the minimum requirement by the next term of evaluation are not permitted to continue in the major.
- Full-time students must have completed PY-290 and SSC-321 by the time they have reached 75 total earned credits with minimum grades of B in both courses.
 - This is to ensure students have time to complete the course sequence of PY-290/SSC-321 and PY-325 (a fall-spring experience) in their remaining time at Carlow.

- Students who do not earn a minimum grade of B in either PY-290 or SSC-321 may retake the course one time prior to reaching 75 total earned credits.
- Students who fail to earn a minimum grade of B in PY-290 and SSC-321 by the time they reach 75 total earned credits are not permitted to continue in the major.
- Students who transfer in PY-290 must have earned a minimum grade of B in the equivalent course.
- Transfer students who do not meet this requirement at the time of transfer must agree to remain at Carlow for a minimum of three semesters to fulfill the course sequence if they wish to major in Behavioral Neuroscience—Neuropsychology.
- Part-time students must have completed PY-290 and SSC-321 with minimum grades of B with at least three semesters remaining at Carlow.

CRIMINOLOGY MAJOR

Criminology is a major within the Psychology, Counseling, and Criminology 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 Criminology Program emphasizes the relationship between psychology and criminology, and addresses how mental health issues, trauma, and societal disadvantages affect crime at the individual and community levels.

A Psychology Concentration is embedded within the Criminology Program, which ensures that students have the knowledge relevant to direct practice professions in the field and helps develop an awareness of the critical role that mental health plays in criminal behavior. Criminology graduates are admitted to law school, graduate programs, and are prepared for careers in city, state, and international law enforcement, adult and juvenile corrections and probation, and prevention and rehabilitation programs.

Requirements:

- CRM 100, CRM 101, CRM 300, CRM 345, CRM 375, CRM 400, AND CRM 450, PY 101, PY 122, PY 209, PY 290 or MAT 115, SSC 321
- Take 3 courses from the following: CRM 187, CRM 240, CRM 250, CRM 285, CRM 303, CRM 315, CRM 319, CRM 289, CRM 413, and PY 352

Recommended Liberal Arts Infusion Curriculum (not required): POL 101, CM 255, EN 221, BIO/PY-230 and TH 311. Consult with your advisor for more information.

APPLIED CRIMINAL JUSTICE SPECIALIZATION

The specialization in Applied Criminal Justice promotes interdisciplinary study and the development of specific applied skills that are relevant to those entering the fields of public safety, probation, policy development, law, and/or corrections. It includes the requirements of the Criminology major and replaces the electives with coursework for students who would like more hands-on learning within the Criminal Justice field.

Requirements:

- CRM 100, CRM 101, CRM 300, CRM 345, CRM 375, CRM 400, AND CRM 450, PY 101, PY 122, PY 209, PY 290 or MAT 115, SSC 321 plus the following courses for the specialization: DTAN 101, CRM 250, CRM 289, CHM 285, CRM 413

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, childcare work, and service coordination.

Students must earn a C- or higher in all major courses. If students earn D+ or below in a major course, they will have to retake the course.

Requirements:

- PY 101 Introduction to Psychology
- PY 122 Lifespan Development
- PY 155 Designing Your Life I: Orientation to Psychology
- PY 203 Personality Theory
- PY 230 Biological Bases of Behavior
- PY 255 Designing Your Life II: Career Formation
- PY 280 Cognitive Psychology
- PY 290 Elementary Statistics & Lab
- PY 320 Qualitative Research Methods or PY 325 Experimental Research Methods (may take both)
- PY 340 Social Psychology
- PY 355 Designing Your Life III: Vocation & Avocation
- PY 455 Knowledge of Psychology
- SSC 321 Research Methods for Social Sciences I
- CM 120 Interpersonal Communication
- Psychology Electives: Choose 1-4 credits in psychology electives. For students in the MS in Professional Counseling or the MA in Psychology Accelerated Programs, master’s level courses in professional counseling or psychology may count towards psychology electives. A minimum of 34 credits is needed for the psychology major.

Required support courses: 6 credits

- Two English courses, one of which must be at 200 level or higher.

CHILD DEVELOPMENT CONCENTRATION

The Concentration in Child Development provides students with a solid foundation in theory and research in this area of study. This concentration is helpful for students pursuing employment and graduate training in developmental psychology, counseling, and fields in which additional knowledge of children’s growth and development would be helpful.

Students concentrating in Child Development are required to satisfy the regular requirements for the major. In addition, they are required to complete at least nine credits in human development from the following list of courses: PY 205 Child Development, PY 206 Adolescent Development, PY 404 Grief and Loss Across the Lifespan, PY 440 Child Abuse & Prevention, PY 441 Parenting, PY 442 Children’s Play. A minimum of six credits in the concentration must be taken at Carlow University.

COUNSELING CONCENTRATION

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. *

Students are required to satisfy the regular requirements for the major. In addition, they are required to complete at least 12 credits in counseling.

Credits	Course Specifics	Prerequisites
3 credits:	PY 285 Introduction to Counseling	PY 101
3 credits in family counseling:	PY 380 Family Counseling	PY 285
Choose 3 credits in crisis & trauma:	PY 420 Impact of Trauma	SW 104 or PY 285
	PY 430 Crisis Intervention	PY 285 or SW 302
	PY 488 Intimate Partner Violence	PY 285 or SW 302
Choose 3 credits of counseling electives:	PY 438 Substance Abuse Counseling	PY 101
	PY 440 Child Abuse Prevention & Treatment	PY 122 OR EC 205 and EC 206/PY 216
	PY 441 Parenting	PY 101 and PY 122 or EC 205 and EC 206/PY 216

Students in the Accelerated MS in Professional Counseling program may count PRC 710. Students in the Accelerated MA in Psychology

program may count PYM 702 and PYM 705 towards the Counseling concentration.

A minimum of six 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.

Recommended elective courses to support the Counseling concentration include any developmental course (e.g. Child Psychology, Adolescent Psychology, Grief and Loss Across the Lifespan), Abnormal Psychology, Psychology of Women, and Cultural Awareness & Human Services. An internship is strongly recommended for this concentration.

CRISIS AND TRAUMA CONCENTRATION

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, **grief and loss**, 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/SW 420 Impact of Trauma
- PY 430/SW Crisis Intervention
- PY/SW 440 Child Abuse Prevention & Treatment
- PY/SW 488 Intimate Partner Violence Seminar or PY/SW 404 Grief and Loss Across the Lifespan

Prior to taking these courses, students need to complete the following pre-requisites: PY 285 Intro to Counseling OR SW 204 Theories and Methods of Practice.

A minimum of six credits in Crisis and Trauma must be taken at Carlow University. An internship in a location relevant to issues raised in the Crisis and Trauma courses is strongly recommended.

NEUROPSYCHOLOGY CONCENTRATION

The concentration in Neuropsychology provides students with a deeper dive into the relationship between the brain and the nervous system and human cognition and behavior. This concentration is helpful for students pursuing employment and graduate training in physiological psychology or clinical/counseling psychology and wish to focus on the biological underpinnings of psychological disorders.

Students concentrating in Neuropsychology are required to satisfy the regular requirements for the major. In addition, they are required to complete at least fourteen credits as follows:

Credits	Course Specifics	Prerequisites
4 credits	BIO 110 Foundations of Organismal Biology	None
3 credits	PY 285 Intro to Counseling	PY 101
4 credits	NEU 220 Neuroanatomy	PY 101, PY 230 or BIO 120
3 credits	NEU 300 Neuropsychology	PY 101, BIO 110, PY 285

Students must earn a minimum grade of C- in all courses to be counted towards the concentration.

BEHAVIORAL NEUROSCIENCE MINOR

The Minor in Behavioral Neuroscience is designed for students who are not majoring in Behavioral Neuroscience. It is of particular interest to Psychology, Biology, and Chemistry majors who would like to focus on Behavioral Neuroscience without majoring in this area. However, other majors are welcome to take this minor, which gives students preparation in all three disciplines (psychology, chemistry, & biology) and some beginning groundwork in Neuroscience. A minimum of 21 credits are required as follows: PY 101, BIO 120, BIO/PY 230I or BIO/PY 230, PY 280, NEU 220, NEU 221. A minimum of ten credits in the minor must be taken at Carlow University.

CHILD DEVELOPMENT MINOR

The Minor in Child Development is designed for non-psychology majors who are interested in exploring the biological, behavioral, emotional, cognitive, and social factors that shape child development (Psychology majors may choose a concentration in child development).

A minimum of 18 credits is required, beginning with PY 101 and PY 122. Students then choose six credits in Child Development from the following courses: PY 205, PY 206, PY/SW 404, PY 440, PY 441, PY 442.

Students complete the minor with six additional credits in any PY course. At least nine credits must be at the 200-level or higher. Transfer students must take a minimum of 9 credits at Carlow, six of which are in Child Development.

COUNSELING MINOR

The Minor in Counseling is designed for non-psychology majors who are interested in developing their pre-professional counseling skills. A minimum of 18 credits are required with a minimum grade of C-.

- PY 101 Introduction to Psychology
- PY 285 Introduction to Counseling
- PY 380 Family Counseling
- Three credits in any PY course
- Three credits in crisis and trauma from:
 - PY 420 Impact of Trauma
 - PY 430 Crisis Intervention
 - PY 488 Intimate Partner Violence Seminar
- Three credits in counseling from:
 - PY 438 Substance Abuse Counseling
 - PY 440 Child Abuse Prevention & Treatment
 - PY 441 Parenting
 - SW 302 Social Work with Individuals (Social Work Majors Only)
 - SW 304 Social Work with Families (Social Work Majors Only)
 - AT 205 Foundations of Art Therapy (Art Therapy Majors only)
 - AT 339 Expressive Visual Techniques (Art Therapy Majors only)
 - PRC 710 Counseling Theory (Accelerated Master's in Professional Counseling students only)
 - PYM 702 Appl of Cognitive & Behavioral (Accelerated Master's in Psychology students only)
 - PYM 705 Appl of Existential & Dynamic (Accelerated Master's in Psychology students only)

Transfer students who wish to transfer coursework from other institutions for this minor must obtain approval for the transfer credit from the Chair of the Department of Psychology. Transfer students must take a minimum of 9 credits at Carlow, six of which are in counseling.

CRIMINOLOGY MINOR

Students from other majors who are interested in studying issues such as the systems and administration of justice, crime theory, and the intersection of mental health and deviant behaviors may elect to minor in Criminology.

Requirements: CRM 100, CRM 101, and 12 credits from the following: CRM 187, CRM 240, CRM 250, CRM 285, CRM 300, CRM 303, CRM 315, CRM 319, and CRM 375

CRISIS AND TRAUMA MINOR

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, grief and loss as well as investigating the impact of trauma for individuals and families. The minor in Crisis and Trauma provides students with a solid foundation in theory and research pertaining to crisis, abuse and trauma. This is an interdisciplinary minor between the Psychology and Social Work departments. This minor requires 18 credits, as follows:

- PY 101 Intro to Psychology or SW 104 Intro to Social Work
- PY 285 Intro to Counseling or SW 204 Theories and Methods of Practice
- PY/SW 420 Impact of Trauma
- PY/SW 430 Crisis Intervention
- PY/SW 440 Child Abuse Prevention
- PY/SW 488 Intimate Partner Violence Seminar or PY/SW 404 Grief and Loss Across the Lifespan

Recommended elective courses to support the Crisis and Trauma minor include:

- PY 265 Psychology of Women
- PY 205 Child Psychology,
- PY 380 Family Counseling
- PY 438 Substance Abuse Counseling
- PY 441 Parenting
- PY/SW 404 Grief and Loss Across the Lifespan or PY/SW 488 Intimate Partner Violence

Transfer students may substitute a transfer course for one of the above, but only with the approval of the department chairs for this minor. A minimum of nine credits in the trauma and crisis coursework must be taken at Carlow University.

PSYCHOLOGY MINOR

The Minor in Psychology allows students to sample from a variety of psychology courses. This minor requires 18 credits in Psychology, including the following: (prerequisites are listed in parentheses)

PY 101 Introduction to Psychology [3 credits]

At least nine credits from the following list:

- PY 122 Lifespan Development [3 credits]
- PY 230I/230 Biological Bases of Behavior [3 credits] (PY 101)
- PY 280 Cognitive Psychology [3 credits] (PY 101)
- PY 290 Elementary Statistics and Lab [4 credits]
- PY 320 Qualitative Research Methods [3 credits] (PY 101, pre- or co-requisite: SSC 321)
- PY 325 Experimental Psychology [4 credits] (PY 290 and SSC 321 with a grade of B)
- PY 340 Social Psychology [3 credits] (PY 101)

At least three credits from the following list:

- PY 203 Personality Theory [3 credits] (PY 101)
- PY 209 Abnormal Psychology [3 credits] (PY 101)
- PY 285 Intro to Counseling [3 credits] (PY 101)

Three credits in any PY course.

At least nine credits must be at the 200 level or higher. Transfer students must take at least nine credits at Carlow University.

Note: Only courses with a "PY" designation count toward the minor in psychology.

FAMILY DYNAMICS ENRICHMENT CERTIFICATE

The Family Dynamic Enrichment Certificate is designed for existing students as well as any direct care staff already working in agency settings that provide community services to children and families. The certificate serves to expand students' knowledge of family relational dynamics and enhance their therapeutic and communication skills to facilitate family healing and growth. This certificate also provides a convenient launch for anyone wanting to pursue an undergraduate degree in psychology, criminology, social work, education, or to augment any other major.

This certificate further provides an opportunity for students to become certified as a Facilitator/Instructor of the Nurturing Parenting Program, a nationally recognized program designed for the prevention and treatment of child abuse (www.nurturingparenting.com). In addition, this certificate provides Child Abuse Mandated Reporter Certification through training offered through Family Support Alliance of PA.

Students pursuing this certificate will be well grounded in counseling skills, family systems dynamics, all aspects of child abuse from prevention to treatment as well as in depth coverage of relational attachment and the impact that both nurturance and trauma have

upon such vital familial relationships.

Requirements: PY 285, PY 380, PY 440 and PY 441 (12 credits)

BA/BS TO MA IN PSYCHOLOGY (MAP) ACCELERATED PROGRAM

Undergraduate students with a major in Psychology, Art Therapy, Social Work, or Criminology are invited to apply to Carlow's Master of Arts in Psychology Program (MAP) prior to graduation. Seniors admitted to this program would be permitted to take up to 9 credits while they are still undergraduate students from the following courses:

- PYM 700: Introduction to Positive Psychology
- PYM 701: Personality & Symptomology
- PYM 702: Applications of Cognitive and Behavioral Treatment
- PYM 705: Applications of Existential and Dynamic Treatment
- PYM 710: Developmental Psychology
- PYM 711: Multicultural Psychology
- PYM 712: Integrated Research Team
- PYM 720: Foundations of Forensic Psychology
- PYM 721: Systems of Criminal Justice
- PYM 722: Psychology of Deviance
- PYM 735: Applications of Art Therapy
- PYM 736: Healing Through Writing and Storytelling
- PYM 737: Art Diversity and Worldview
- PYM 760: Foundations of Neuropsychology
- PYM 765: Evidence-Based Psychology Practice

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 9 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 MA in Psychology 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 senior year. In order to begin MAP courses, you must:

- Major in psychology, art therapy, social work, or criminology
- Late junior or senior status
- Achieve a cumulative GPA of 3.0 while at Carlow
- Meet Carlow residency requirements (completed 9 credits of psychology or criminology at Carlow and 15 Carlow credits overall)
- Achieve a minimum grade of B in the MAP courses to continue in the program
- Undergraduate advisor's approval
- Submit application materials by contacting the MAP director
- Approval of MAP director

Several undergraduate courses serve as prerequisites for specific MAP courses:

- PY 285 Introduction to Counseling or SW 302 Social Work with Individuals to take PYM 700
- PY 209 Abnormal Psychology or CRM 300 Crime and Mental Illness to take PYM 701
- CRM 100 Introduction to Criminology to take PYM 720 or PYM 722
- CRM 101 Introduction to Criminal Justice to take PYM 721

Additional qualities that are not required but will elevate the likelihood of acceptance to the program include:

- Work experience in psychology, social work, or criminology via employment, internships, or practica
- Research experience or strong potential for research
- Strong writing skills
- Strong performance in undergraduate coursework (3.3 or better)
- Strong letters of recommendations

- Membership in Psi Chi

Full admission to the MAP may be granted upon completion of the undergraduate degree from Carlow and application to the program.

BA/BS TO MASTER OF SCIENCE IN FRAUD AND FORENSICS ACCELERATED PROGRAM

Undergraduate students from all majors are invited to apply to Carlow’s Master of Science in Fraud and Forensics program prior to graduation. Juniors and seniors admitted to this program would be permitted to take MFF courses while they are still undergraduate students. Students can take up to 3 of the following courses:

- MFF 711 White Collar Crime, (3 credits)
- MFF 712 Elements of Money Laundering, (2 credits)
- MFF 717 Psych & Crim Dimensions of Financial & Cyber Crimes (2 credits)
- MFF 721 Legal Elements of Fraud, (2 credits)
- MFF 730 Cyber Crime (3 credits)

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 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 Carlow’s MFF program upon graduation. 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 at the start of the student’s senior year. In addition to the requirements for enrolling in Carlow’s accelerated programs (Accelerated Programs section above), entrance into the accelerated Master of Science in fraud and forensics program requires that MFF 710 Fraud and Forensics Community Experience (2 credits) be taken prior to beginning the program. Final and full admission to the MFF may be granted upon completion of the undergraduate degree from Carlow.

BA/BS TO MS IN PROFESSIONAL COUNSELING ACCELERATED PROGRAM

Undergraduate students from all majors who have completed the prerequisite courses (PY 122, PY 203, and PY 285) are invited to apply to Carlow’s Master of Science in Professional Counseling 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:

- PRC 701: Human Growth and Lifespan Development
- PRC 702: Social and Cultural Foundations
- PRC 708: Ethics and Professional Orientation
- PRC 710: Counseling Theories

The courses offered have been pre-selected as optimal for undergraduate students, and no more than 4 PRC graduate courses can be taken at the undergraduate level. To be given graduate credit, all graduate courses must be passed with a B- or above. These 12 credits will also be counted toward the 120 credits needed for the undergraduate degree. 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 can begin your junior year. Please see the Accelerated Programs section above for more information about admission requirements.

Three undergraduate psychology courses serve as prerequisites for specific PRC courses:

- PY 122 Lifespan Development to take PRC 701 or PRC 702
- PY 203 Personality Theory to take PRC 708 or PRC 710
- PY 285 Introduction to Counseling to take PRC 708 or PRC 710

Full admission to the Master of Science in Professional Counseling program may be granted upon completion of the undergraduate degree from Carlow and application to the program.

DEPARTMENT OF SOCIAL WORK

MAJORS

- Social Work
- Social Work with a specialization in:
 - Crisis and Trauma
 - Forensic Social Work
 - Healthcare Social Work
 - Restorative Justice

MINORS

- Behavioral Health
- Healthcare Social Work
- Leadership & Social Change

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 450-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.

Requirements:

- SW 104 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 Humility in Social Work
- SW 302 Social Work with Individuals
- SW 303 Social Welfare Policy
- SW 304 Social Work with Families
- SW 305 Social Work with Groups
- SW 399 Professional Ethical Leadership in Social Work
- SW 402 Field Placement I
- SW 405 Field Seminar I
- SW 406 Field Placement II
- SW 407 Field Seminar II
- SW 421 Research I
- Support courses: PY 101; SO 152; BIO 157 or BIO 230/230I; and MAT 115, MAT 106, or PY 290.
- Take 18 credits of electives from subjects Communication (CM), Criminology (CRM), Economics (EO), Political Science (POL), Psychology (PY), Sociology (SO), Social Work (SW), or Women's Studies (WS), excluding any courses that are already counting in the major requirements above.

Social work majors:

- must earn a C or higher in all required SW courses and Specialization courses (courses with prefix HIM, CRM, SW/PY) for the credits to count towards the BSW major.
- must earn a P (Pass) Field Placement I graded on a Pass/Fail basis to continue in the program and to progress to Field Placement II.
- must earn a P (Pass) in Field Placement I and II graded on a Pass/Fail basis for the credits to count towards the BSW major.
- must earn a D or higher in Support courses for the credits to count towards the major.
- must earn a D- or higher in Compass courses for the credits to count towards the major.
- are required to maintain a minimum 2.5 overall GPA to stay in the BSW program.
- earning a C- or lower in a required SW course or Specialization course will receive a program academic warning; earning a second C- or lower in a required SW course or Specialization course will result in dismissal from the BSW program.
- complete the program of study in the prescribed sequence.
must demonstrate professional standards of conduct in all Carlow BSW program requirements per the Essential Standards in the BSW Handbook (classroom, volunteering, field placement, student activities).
- must pass with readiness approval the Upper Level and Field Placement interview with the BSW Admissions Committee.

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.

CRISIS AND TRAUMA SPECIALIZATION

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, replacing the electives with the courses below. A minimum of six credits in Crisis and Trauma must be taken at Carlow University.

Students are required to satisfy the requirements for the major. In place of the 18 credits of electives, students are required to take the following in Crisis and Trauma: PY/SW 420; PY/SW 430; PY/SW 440; PY/SW 488 OR PY/SW 404, plus 6 credits of electives from subjects Communication (CM), Criminology (CRM), Economics (EO), Political Science (POL), Psychology (PY), Sociology (SO), Social Work (SW), or Women's Studies (WS), excluding any courses that are already counting in the major requirements above.

Prior to taking these courses, students need to complete the following pre-requisites: PY 285 Intro to Counseling OR SW 204 Theories and Methods of Practice.

A minimum of six credits in Crisis and Trauma must be taken at Carlow University.

Students who wish to take these courses and are not in the Crisis and Trauma Concentration, may request to enroll in the course with permission from the department chair/program director's approval.

FORENSIC SOCIAL WORK SPECIALIZATION

The Forensic Social Work specialization offers students a greater understanding of issues related to the justice system. It's ideal for students interested in working on the non-law-enforcement side of criminal justice practice and in the growing field of forensic social work.

Students are required to satisfy the requirements for the Social Work major. In place of the 18 credits of electives, students are required to complete the following courses: CRM 100, CRM 101, CRM 250, CRM 300, CRM 412, and CRM 413.

Forensic Social Work Concentration Courses must be taken at Carlow University.

Students who wish to take a course(s) and are not a Forensic Social Work Concentration, may request to enroll in the course with permission from the CRM department chair/program director approval.

HEALTHCARE SOCIAL WORK SPECIALIZATION

This specialization provides the student with a conceptual, ethical, and practice framework for social work practice in health care. Emphasis is on an overview of the United States health care system, the unique knowledge and skill base of social work in health care, the biopsychosocial/spiritual impact of illness on patients and their family members and/or support system, and the special psychosocial needs of populations most often served in health-related social work. The introduction to biomedical ethics is provided as well as the fundamental medical terminology necessary for social work practice in health care.

Students are required to satisfy the requirements for the Social Work major. In place of the 18 credits of electives, students are required to complete the following courses: SW 298; SW 309; SW 404; HIM 102. plus 6 credits of electives from subjects Communication (CM), Criminology (CRM), Economics (EO), Political Science (POL), Psychology (PY), Sociology (SO), Social Work (SW), or Women's Studies (WS), excluding any courses that are already counting in the major requirements above.

Prior to taking SW 309, students must successfully complete SW 104 and SW 302. SW 404 has a prerequisite of PY 101.

A minimum of six credits in Healthcare Social Work must be taken at Carlow University.

Students who wish to take a course(s) and are not a Healthcare Social Work Concentration, may request to enroll in the course with permission from the department chair/program director approval.

RESTORATIVE JUSTICE SPECIALIZATION

Studies in the area of Restorative Justice provide a foundational focus in addressing community-based issues pertaining to inequities in the justice system as well as alternate methods for addressing crime-related issues beyond the typical incarceration models most often employed by the United States. Students are encouraged to consider how race and class affect interactions with the police and court systems and the concentration provides a solid foundation of theory, policy, and research to help students become active change agents as they enter the workforce.

Students are required to satisfy the requirements for the Social Work major. In place of the 18 credits of electives, students are required to complete the following courses in the Restorative Justice Sequence: SW 216 and CRM 375, as well as two courses from the following: CRM 285, CRM 300, CRM 303, and/or CRM 315. plus 6 credits of electives from subjects Communication (CM), Criminology (CRM), Economics (EO), Political Science (POL), Psychology (PY), Sociology (SO), Social Work (SW), or Women's Studies (WS), excluding any courses that are already counting in the major requirements above.

Prior to taking these courses, students need to complete the following pre-requisites: CRM 101 and SW 104.

A minimum of 6 credits of these selected Restorative Justice courses must be taken at Carlow University.

Students who wish to take a course(s) and are not a Crisis and Trauma Concentration, may request to enroll in the course with permission from the department chair/program director approval.

BEHAVIORAL HEALTH MINOR

Carlow University students from all majors can add a minor in Behavioral Health through the Social Work department. This minor will prepare students to work in both behavioral health organizations and in settings where behavioral health impacts clients and communities such as in healthcare, education, criminal justice, and advocacy. Students in this minor will learn about the profession of Social Work including how to develop cultural competence in working with diverse populations. They will explore the individual and community context of behavioral health as well as learn about case management. Two specific elective courses focused on topics such as practice with groups and families, networking in the community, crisis intervention, substance abuse or the forensic context will further prepare students to work in this arena. All 18 credits must be completed with a grade of C or higher to earn the minor degree.

Requirements:

- SW 104, SW 214, SW 270, SW 302
- Electives (Choose 6 credits): SW 204, SW/PY/SO 218, SW 304, SW 305, SW/PY 352, SW/PY 430, SW/PY 438

Students who wish to take a course(s) who are not a Behavioral Health minor may request to enroll in the course with permission from the department chair/program director's approval.

HEALTHCARE SOCIAL WORK MINOR

This minor provides the student with a conceptual, ethical, and practice framework for social work practice in health care. Emphasis is on an overview of the United States health care system, the unique knowledge and skill base of social work in health care, the biopsychosocial/spiritual impact of illness on patients and their family members and/or support system, and the special psychosocial needs of populations most often served in health-related social work. The introduction to biomedical ethics is provided as well as the fundamental medical terminology necessary for social work practice in health care.

Requirements: PY 101, SW 104, SW 298, SW 302, SW 309, SW 404, and HIM 102.

Students who wish to take a course(s) who are not a Healthcare Social Work minor may request to enroll in the course with permission from the department chair/program director's approval.

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 consists of 21 credits (seven classes) and begins with the following three interdisciplinary classes.

- SSC 100/PY 100: Seminar on Self
- CM 120: Interpersonal Communication
- SSC 200/POL 200: 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, they must complete three additional classes, one from each of the following areas:

AREA I: LEADERSHIP

Choose one:

- 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 313I (WS 313I, PH 313I) Women in Politics: Running for Office
- PY 265 (WS 265): Psychology of Women
- SO 230 (WS 230): Women in Culture and Society

AREA II: ADVOCACY AND ACTION

Choose one:

- CM/SW 310SL: Youth Media Advocacy Project
- CM 325: Communication and Social Movements
- 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
- SSC 321: Research Methods for Social Sciences I

AREA III: SOCIAL JUSTICE ISSUES

Choose One:

- BSM 413: Business Ethics and Social Responsibility
- CM 457: Communication Ethics

- POL 228: Gender, Law, and Public Policy
- PY 270 (SO 270, SW 270): Cultural Humility in Social Work
- 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
- SO 260: Urban Community and Politics

The student must earn a C grade or better in all courses for the minor. Furthermore, at least one must be at the 300 or 400 level.

ACCELERATED PROGRAMS

Accelerated programs provide opportunities for qualified students to begin graduate level coursework while an undergraduate that can lead to the completion of the undergraduate and graduate degrees in less time. Students in one of Carlow's accelerated degree programs can earn up to 12 credits that count towards completion of both the bachelor's and master's degrees. Please see departmental sections for details and requirements for accelerated programs. Entrance requirements into the accelerated programs include:

- Junior or Senior standing
- 3.0 Cumulative GPA
- Application
- Approval of the graduate program director and the student's advisor
- Completion of prerequisite course work, where applicable
- Meet residency requirements by having completed 15 credits in residence at Carlow, including 9 credits of undergraduate coursework in the major

Students must earn at least a B- or higher in accelerated program courses to remain in this track. Following completion of an accelerated program, students have streamlined application processes to complete the master's degree if they intend to enroll immediately following their undergraduate career. Satisfactory performance (B- or higher) in accelerated program classes is needed to stay in the accelerated program.

THREE-YEAR DEGREE PROGRAMS

Carlow offers students the ability to complete a degree in the majors below in three years. This option is available to first year students. For transfer students, whether the accelerated option is possible would be on an individual review. The following programs offer 3-year completion options.

- Accounting
- Forensic Accounting
- Business Management
- Psychology
- Criminology
- Communication
- Health Sciences
- Human Resource Management
- Respiratory Therapy
- Social Work

The programs run Fall-Spring-Summer for at least two of the three years. Students typically must take 18 credits every fall and spring term, as well as summer classes, to complete 120 credits in three years, although credit counts may vary by program. Summer programming will be entirely online and will focus on Compass requirements. Students should discuss this option with an admissions counselor prior to applying as it is necessary to begin the coursework immediately. Each major listed above has a set curricular guide for the three-year program which can be accessed by contacting the department chair or program director.

COLLEGE OF ARTS AND SCIENCES COURSE DESCRIPTIONS

ACCOUNTING

ACC 104 (BSM 104) Introduction to Financial Accounting

An introduction to the discipline of accounting; introduces accounting principles, terms and concepts governing the recording, reporting, and analyzing of accounting data. The accounting cycle—journal entries, general ledger, trial balances, and financial statements (income statement, balance sheet and cash flow statement) will be studied. The student will also develop a basic understanding of how to analyze financial statements to determine profitability, financial position, and liquidity. 3 credits

ACC 205 Accounting Information Systems

This course introduces students to the use of software packages and information systems used in accounting and forensic accounting, with particular focus on the use of QuickBooks (TM) program. 3 credits

PREREQUISITE: ACC 104

ACC 207 (BSM 207) 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

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 104.

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 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 104

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 306

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 306

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 that 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

ACC 460 (BSM 460) Internship & Practicum

Internships and practicums are opportunities for students to apply concepts learned in accounting and business courses by working in a field of interest related to the students' programs of study. Student internships and practicums must meet departmental and university requirements. Students must meet with the course instructor to discuss and to obtain approval for the internship or practicum placement. Open to students who have completed at least 60 academic credits. 1–6 credits

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

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 is given to representation of social relations, gender, religion, and politics; the context of production, use, and display. 3 credits

AR 103 Every Picture: Global Themes in Art

This course presents a thematic and global approach to the history of art. Students will explore a range of topics or themes from a global perspective. Some of the topics may include war, love, the human body, family, portraits, god(s). Students will examine how artists from around the world explore these themes and how these artworks tell stories about these universal themes from varying perspectives. 1.5 credits

AR 111 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

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
PREREQUISITES: AR 111

AR 115 Design I

An introduction to two-dimensional design concepts. The 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

AR 168 Approaches to Contemporary Curating and Art

Approaches to contemporary art and curating explores the intersections of artistic practice, exhibition-making and museum publics through the lens of contemporaneity and relevant critical, theoretical, and historical frameworks. This course emphasizes decolonial and feminist approaches that center the production of BIPOC/women/LGBTQIA artists and curators, and challenges the white supremacist, patriarchal, and colonial legacies of the field of art history. 3 credits

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 CI and places these works in a historical context. The first half of the course will be devoted to issues in modern and avant-garde art in Europe and North America, setting the foundation for an in-depth exploration of the CI. 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

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

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

AR 214 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 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. Fulfills linked requirement when offered as AR221L and taken with BIO 157L. 3 credits

PREREQUISITES: AR 111 OR AR 114

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. 3 credits

PREREQUISITE: AR 111 OR AR 114

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. The 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

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 115.

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 115

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 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

AR 249 20th Century Art in the United States

This course examines visual art (primarily painting and photography) in the United States in the 20th century. Following a chronological format, we begin with the 1893 World's Columbian Exposition and end with a discussion of 9/11 memorials. Students study modern art movements such as Regionalism, Abstract Expressionism, Pop Art, and Minimalism, as well as postmodern art production that defies and questions the "isms" of modernist movements. Special emphasis on race, class, gender, and the socio-political context of artmaking and art reception. In addition, we highlight the importance of art institutions, exhibitions, and art collecting in shaping culture in the U.S. in the 20th century. 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 Decolonizing Contemporary Art

An introduction to the art theories and practices of artists working with social and political issues in the 20th and 21st centuries. Surveys global practices and art movements. Concentrates on the social engagement and art activism of artists from the 1960s to present day in the context of social and political movements examined through anti-racism and decolonial lenses. 3 credits

AR 305I (TH 305I) Memory

In this 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
PREREQUISITE: SKC 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

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: SKC 101, SKQ 101, AR 111, AND AR 115

AR 313 Digital Photography

This course provides a solid foundation in digital photography, focusing on various aspects of making images including storytelling techniques, smartphone photography and aesthetics, developing skills with DSLR cameras and post-production practices using Adobe Creative Suite, as well as providing an introduction into media studies, and photography theory and histories. As such, this course provides a solid foundation in digital photography, including developing skills to create visually compelling photographs, tell captivating stories, and understanding the theoretical and historical underpinnings of photography. 3 credits

AR 315 Design II

A concentration on formal and technical problems of three-dimensional 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 OR AR 115

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

PREREQUISITES: AR 111 OR AR 114

AR 321 Printmaking

An introduction to basic printmaking methods. The 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

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

AR 340 Typography

This course will introduce students to both traditional and advanced typography. Students will focus on the history and foundation of letterforms. The course will expose students to the relationship between appearance and readability of letterforms, placement of display and text typed in formatted space. As they work in a traditional context of hand rendering type, they will also be introduced to contemporary typesetting technology. As students understand the basics, they will be challenged to emphasize creativity and visual aesthetics with type. Typographical assignments will be geared to develop sensitivity to the integration of typography with a variety of visual imagery. 3 credits

AR 341 History and Analysis of Design

This course will introduce the study of the art of movements that have structured the field of graphic design covering political, social, and economic influences as well as the analysis of contemporary design and design trends. 3 credits

AR 342 Digital Illustration

This course will be focused on teaching vector-based image creation techniques as they are related to advertising, design, and illustration fields. 3 credits

AR 343 Advertising

This course is designed to introduce both advertising design and corporate identity. Students will explore preparation of original concepts while utilizing the principles of design, typography, color, and problem-solving skills. They will stress attention to detail, deadlines, professional presentation, and cultural diversity in artwork. This course will introduce students to the business ethics, contracts, and billing within the design and advertising fields. Students will also have an opportunity to learn about the role of design in corporate identity. An analysis of corporate objectives and practical applications will be the basis for developing a structured corporate image system including logo design and brand standards. 3 credits

AR 344 Creative Publishing Practices

In this course, Students will explore various means of indicating, placing, and manipulating visual elements in page design. They will develop strong and creative layout solutions by means of conceptual design process. The course is designed to help students obtain the ability to effectively integrate photographs, illustrations, and type using InDesign. 3 credits

AR 345 Business of Media Art and Design

This course will investigate traditional and emerging business topics. It is designed to prepare students as they transition into a media and design profession. The course will cover concepts of professionalism and expected business needs. The students will have an understanding of self-marketing, proposals and project management as well as intellectual property and contractual issues. 3 credits

AR 355 Introduction to Digital Art and Media

An introductory course in basic computer art skills including Adobe Photoshop, Adobe Illustrator, and basic Web page design. 3 credits

AR 370 The Creative Freelancer

The Creative Freelancer is a course designed for juniors and seniors who intend to work for themselves in a creative field (art, music, writing, etc.). Students will learn about creative professional practice. Lessons will include marketing oneself, taxes for sole proprietorships, writing proposals, pricing one's services or artwork, grant writing, etc. As homework, students will write CVs, cover letters, proposals, and other documents that they will be able to use when applying for real opportunities outside of the classroom. The course is intended to benefit students by preparing them for practicalities in their futures, rather than to test their abilities within art, music, writing, etc. For that reason, it has been designed as an elective, one-credit pass/fail course that meets for one hour per week. 1 credit

AR 380 Creative Production

In this course students will work in a studio environment and will focus on the production and postproduction of outsourced animated

shorts, motion graphics, graphic design, and illustration. Students will have an opportunity to work in small teams with designated roles and responsibilities. They will utilize written and oral communication skills while working on outsourced client-based projects. 3 credits
PREREQUISITES: AR 115 and AR 355

AR 381 Multimedia Storytelling

This course will focus on the importance of storytelling in animation and media arts while introducing various elements of effective techniques to enhance the story. The course will expose students to industry-based storyboard techniques to convey a story. Students will utilize storyboard creation to demonstrate their story in digital film format. They will create an animatic using audio and editing techniques to enhance the story further. Digital editing techniques will help students possess an additional skill in digital film post-production. 3 credits

AR 382 Material, Lighting, and Texturing

This course will expose students to materials, textures, and lighting strategies to add detail and realism to objects while working with simple models. During assignments, students will study real world surfaces and recreate them along with textures. 3 credits

AR 383 Motion Graphics

This course will refine students' illustration techniques through the introduction of timeline based digital compositing process. This course will further emphasize the importance in design elements while working with 2D elements in a 3D environment to create various projects which will include examples in: rotoscoping, keying, tracking, multiple layers, 3D-camera and lighting, and kinetic typography. Students will also have the opportunity to incorporate live action film footage to projects. 3 credits
PREREQUISITES: AR 355 AND AR 381

AR 384 Intermediate Animation

This course will allow the students to explore animation throughout history. It will introduce animated film from its most simplistic form to current adaptations also in a variety of mediums. Students will have the opportunity to implement the principles of animation within projects that will concentrate on real world movements and how to manipulate them to create the illusion of life. 3 credits

AR 385 Animation Design and Layout

This course will focus first on designing and drawing characters or objects for animation using line to accurately create the form which will enhance apt proportion. The course will also focus on the fundamentals of background layout with emphasis on perspective, composition, design properties, staging, mood, lighting, and overall storytelling. This will create a 3-Dimensional composition in 2-Dimensional format utilizing foreground, mid-ground, and background elements. 3 credits
PREREQUISITES: AR 355 AND AR 221

AR 386 Principles of 2D Animation

This course is an introduction to 2-dimensional hand drawn animation which focuses on the principles of animation and incorporates acting elements through the study of animation. Students will reproduce characters' personality, expression, body language, and posture through classroom exercises. As the students apply principles to create an animated sequence, they will demonstrate timing through the use of various image acquisition techniques, pencil tests, inking, and other 2D animation skills will be introduced. 3 credits
PREREQUISITE: AR 384

AR 387 3D Modeling and Animation

This course will allow students to utilize basic design principles to conceptualize 3D design elements. Students will construct 3D models focusing on the geometric construction. The course will also introduce basic 3D animation techniques which will include hierarchical linking, keyframing, function curves, animated modifiers, basic morphing, animated cameras, and an introduction to character animation. 3 credits

AR 388 3D Character Modeling and Rigging

This course will introduce the fundamentals of character setup. Using industry standard techniques, students will use advanced anatomical modeling to create 3D characters. The characters will be tested by animation assignments. After animated studies, students

will incorporate their character animation in a real-life sequence. 3 credits
PREREQUISITES: AR 221, AR 255, AND AR 384

AR 389 Portfolio Pre-Production

This course will help students prepare for the industry through personal branding and portfolio. Students will demonstrate the skill and knowledge they have obtained throughout the program in conceptual design and creative problem solving while compiling and refining portfolio artwork. Instructors will work individually with students to advise them on what should be chosen to showcase their unique style and skill. This course is designed to help students identify short- and long-term professional employment goals as well as industry related resources. 1 credit

AR 390 Portfolio Production

This course is designed to continue students' portfolio pre-production professional development. The students will prepare for entry level employment within the industry through finalizing their professional portfolio along with its presentation. Students will demonstrate advanced skills in conceptual thinking, design, creative problem solving, and utilizing constructive criticism as portfolios are refined. Students will be exposed to additional industry resources such as industry database, employment guide, discussion in copyright, and film festivals. 2 credits

AR 421 Senior Project

An opportunity for the student 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. 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 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 of full-time teaching in an elementary (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 each
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 THERAPY

AT 205 Foundations of Art Therapy

An introduction to art therapy in which students learn how art 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 OR PERMISSION OF ART 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 achieved through discussion of the student's own artwork and through slides, films, photographs, and artwork of clients in treatment. 3 credits
ART THERAPY MAJORS ONLY

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.

BIO 120 Foundations of Molecular and Cell Biology

A second course in the biology curriculum, which 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 151 (CHM 151, MAT 151) 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
PREREQUISITES: BIO 110 OR PCS 221; MAT 152 OR MAT 160; SKW 101, SKC 101, AND SKQ 101

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

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

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 217 Principles of Microbiology

A course designed to provide students with an introduction to the biology of microbes, including a review of the biology and chemistry of cells. Students explore the positive and negative interactions between microorganisms and humans, focusing on their impact on human health. The characteristics of classification of microbes as bacteria, protists, fungi, helminths, viruses, and prions are discussed. The biological basis of clinical activities in infection prevention, control, and treatment is emphasized. The human immune response to fight against infectious disease is introduced. The laboratory portion of the course focuses on aseptic technique, microscopy, diagnostic microbiology, and control of microbial growth. 4 credits

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 microorganisms, 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 230I/230 (PY 230I/230) 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

PREREQUISITE: PY 101

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 231, provides a basic understanding of the structure and function of the human body. 1 credit

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 three-hour 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 280SL Current Topics in Cell Biology

A service-learning course for biology majors designed to integrate 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 transduction and pharmacology 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 service-learning course, students will be exploring the social and ethical responsibilities of the field, as well as participating in a service-learning 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 306/306I (CHM 306/306I) Biochemistry

The science of biochemistry covers the arena where molecular and cell biology and chemistry interrelate. This course is an interdisciplinary (same as CHM 306I) one-semester introduction to selected areas of biochemistry. 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. credits

PREREQUISITES: BIO 120, CHM 212

BIO 307 Pathophysiology I

This course examines 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. BIO 307 is the first in a two-part series, with BIO 308 being offered in the spring term. 2 credits

BIO 308 Pathophysiology II

This course examines 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. 2 credits

PRE-REQUISITE BIO-307. 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 three-hour 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, helminths, 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 three-hour 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 I

This is the first part of two course sequence designed to provide the biology major with the unique opportunity to explore the details of human anatomy through cadaver dissection. BIO-357 emphasizes cadaver preparation, the muscular system, and the nervous system. The other body systems are examined in BIO-358 Gross Anatomy II. A minimum of four hours of dissection time per week is required. Students enrolled in BIO-357 are expected to enroll in BIO-358 in the spring term. 2 credits

PREREQUISITES: BIO 110, BIO 120, BIO 205 AND BIO 206.

BIO 358 Gross Anatomy II

This is the second part of a two course sequence designed to provide the biology major with the unique opportunity to explore the details of human anatomy through cadaver dissection. BIO-358 emphasizes the cardiovascular, respiratory, digestive, excretory, and reproductive systems. A minimum of four hours of dissection time per week is required. 2 credits

PREREQUISITE: BIO-357

BIO 380 Special Topics in Biology

This course offers in-depth exploration of a special topic, issue or trend in the biological sciences as determined by the instructor.

Reflects the special expertise of the faculty and/or the special needs of the students. Variable, 1-4 credits

PREREQUISITE: PERMISSION OF INSTRUCTOR.

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 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 211-213, AND CHM 212-214.

BIO 497 Senior Capstone

The capstone course for biology majors is an independent experience within the field of biology that involves the composition of a grant proposal comparable to proposals submitted to the National Institutes of Health (NIH). The proposal is constructed in consultation with a faculty mentor. 4 credits

BUSINESS MANAGEMENT

BSM 103 Introduction to Business and Management

An introductory course dealing with today's global business environment. Topics include management and leadership, entrepreneurial concepts, legal structures of organizations, technology, and all major functional areas of business operations. The course culminates in the outline of a small business plan idea. 3 credits

BSM 104 (ACC 104) Introduction to Financial Accounting

An introduction to the discipline of accounting; introduces accounting principles, terms and concepts governing the recording, reporting, and analyzing of accounting data. The accounting cycle—journal entries, general ledger, trial balances, and financial statements (income statement, balance sheet and cash flow statement) will be studied. The student will also develop a basic understanding of how to analyze financial statements to determine profitability, financial position, and liquidity. 3 credits

BSM 202 (CM 202) Business Communication

A theoretical student and practical application of communication principles related to business, both internally and externally. Emphasis is given to written communication in accomplishing organizational objectives. The written assignments in this course (letters, memoranda, emails, business reports/proposals) are derived from supposed business scenarios/situations. The job and internship-finding process, which includes letters of application, resumes, and interviewing skills, receives special emphasis. 3 credits

PREREQUISITES: SKW 101, SKC 101, SKW 102, AND BSM 103.

BSM 203 Global Management and Organizational Behavior

This course provides an examination of the concepts of global organizational behavior at these varied levels: individual, interpersonal, group, and cross-cultural. Also, managerial applications of the behavioral sciences and human relations theories will be studied and evaluated through a systems viewpoint. Cross-cultural considerations will be examined as well in organizational culture/structure aspects. 3 credits

PREREQUISITE: BSM 103

BSM 207 (ACC 207) 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 214 (PH 214) Artificial Intelligence and Our World

This course will explore the topic of artificial intelligence and its invasion into our society. We begin with a look of the history of technology and the impact of technology on the workforce. Students will explore questions of humanity, post humanity, building of big data and robotics, and military use of AI. The course is designed to introduce students to the major ethical systems in the history of Western philosophy which allows students to analyze current moral issues. The course will use the rapid expansion of Artificial Intelligence to help us understand the moral implications of this expansive, disruptive technology. 3 credits

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 302 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 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 non-union settings. Special topics include the glass ceiling concept and comparable worth. 3 credits

PREREQUISITES: BSM 103 and BSM226.

BSM 329 Fair Employment Practices

A study of federal, state, and local laws involving fair employment, equal pay, and comparable job worth. Emphasis is 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 382 (CM 382) Social Media Management

This course examines the pervasive and evolving impact social media has on society, with specific interest in the implications and strategic use of social media for professional communication. Students will explore social media history, environment, and regulation, and learn to use social media tools to foster community, relationships, and personal and corporate branding. 3 credits

PRE-REQUISITES: SKC 101; SKW 101

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 the strategic management process, which begins with planning. Levels of strategy are studied as well as the subsequent effect on all functional areas of business operations. The importance of environmental monitoring, economic forces, and competitive threats are examined. The course culminates in an analysis of an actual organizational 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 the larger context of society. Topics include the role of business in the community, with the government, and societal culture. Issues studied involve both market and non-market decisions that affect organizational stakeholders. Students will analyze a professional or organizational Code of Ethics. The final outcome involves students gaining a Certification in Ethical Leadership through the *National Association of State Boards of Accountancy* (NASBA). 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 that 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 (ACC 460) Internship & Practicum

Internships and practicums are opportunities for students to apply concepts learned in accounting and business courses by working in a field of interest related to the students' programs of study. Student internships and practicums must meet departmental and university requirements. Students must meet with the course instructor to discuss and to obtain approval for the internship or practicum placement. Open to students who have completed at least 60 academic credits. 1–6 credits

BSM 461 Special Topics

An upper-level management course designed to provide 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. 3 credits

CHEMISTRY

CHM 100 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 chemistry on a need-to-know basis. In every instance, 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

CHM 103 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

CHM 105 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.
credits

CHM 111 General Chemistry I Lecture **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. This course sequence is offered each academic year.

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.

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. This course sequence is offered each academic year.

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.

CHM 151 (BIO 151, MAT 151) 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

PREREQUISITE: CHM 111, BIO 110, OR PCS 221; MAT 160

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 Organic Chemistry II Lecture

A two-semester sequence of courses that 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 structure-reactivity 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 211. 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.

CHM 213 Organic Chemistry I Laboratory

CHM 214 Organic Chemistry II Laboratory

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 PREREQUISITE 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 255 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
PREREQUISITE: CHM 212

CHM 285 Special Topics

This is a variable credit 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. 1-3 credits
PREREQUISITE OR CO-REQUISITE: CHM 212

CHM 306/306I (BIO 306/306I) Biochemistry (Interdisciplinary)

The science of biochemistry covers the arena where molecular and cell biology and chemistry interrelate. This course is an interdisciplinary (same as CHM 306I) one-semester introduction to selected areas of biochemistry. 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
PREREQUISITES: BIO 120, CHM 212

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

CHM 312 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
PREREQUISITE: CHM 212.

CHM 350 (TH 350) Miracles: Science and God

Studies in the fields of theoretical physics and quantum mechanics suggest exciting possibilities for a 21st-century theology of divine action. In particular, this course will investigate the relationship between what Thomas Aquinas referred to as primary cause (the origin of all things) and secondary causes (all the interactions we perceive in the empirical world). This is an anchor course in the Carlow Compass. 3 credits

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 411 Physical Chemistry I

CHM 412 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. 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

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 curriculum 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, separation 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

PRE/CO- OR COREQUISITE: CHM 412. THIS COURSE SERVES AS THE CAPSTONE EXPERIENCE FOR CHEMISTRY MAJORS IN THE CARLOW COMPASS.

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. One-hour seminar weekly, plus additional time needed to complete the experience. This course sequence is offered each academic year. 2 credits each

PREREQUISITE: CHM 399.

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

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

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 the 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 202 (BSM 202) Business Communication

A theoretical student and practical application of communication principles related to business, both internally and externally. Emphasis is given to written communication in accomplishing organizational objectives. The written assignments in this course (letters, memoranda, emails, business reports/proposals) are derived from supposed business scenarios/situations. The job and internship-finding process, which includes letters of application, resumes, and interviewing skills, receives special emphasis. 3 credits
PREREQUISITES: SKW 101, SKC 101, SKW 102, AND BSM 103

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: 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

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: 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

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: SKC 101.

CM 255 Media and Crime

This course explores the social construction of crime in the media; the framing of crime, criminals, and victims in media stories; media portrayals of law enforcement, the judicial system, and corrections; and the impact of media on crime policy and practice. Students will learn about the conventions of news, entertainment, and social media— as well as the larger social and cultural roles of media – in order to develop a critical approach to understanding of media and crime. The role of race, class, and gender within the relationship between media and crime is a prominent theme throughout the course. 3 credits
PREREQUISITES: SKC 101 AND SKW 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: SKW 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: 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, EN 307) Media Criticism

An introduction to the aesthetic and social analysis of mass media, film, and television through critical writing and discussion. 3 credits
PREREQUISITES: SKW 101 AND SKC 101

CM 310SL (SW 310SL) Youth Media Advocacy Project (YMAP)

The Youth Media Advocacy project provides high school students with the knowledge, skills, and support to utilize 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

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, third-party 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

PREREQUISITES: 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: 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 taught as an interdisciplinary course that integrates perspectives from communication and social work. 3 credits

PREREQUISITES: SKW 101 AND SKC 101

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 students' 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 students to become proficient in digital forms of communication that are essential for 21st century communication practitioners. 3 credits

PREREQUISITE: CM 260

CM 370 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 healthcare 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

PREREQUISITES: SKW 101 AND SKC 101

CM 380 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 382 (BSM 382) Social Media Management

This course examines the pervasive and evolving impact social media has on society, with specific interest in the implications and strategic use of social media for professional communication. Students will explore social media history, environment, and regulation, and learn to use social media tools to foster community, relationships, and personal and corporate branding.

PRE-REQUISITES: SKC 101; SKW 101

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 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.

COMPUTER SCIENCE

CSC 101 Programming for Everyone I

This course, built in collaboration with Google, provides a gentle, but thorough, introduction to programming using Python. You will learn the core concepts and techniques needed to create programs and perform basic data analysis. By the end of this course, you'll be ready to pursue further study in computer science and unlock more advanced programming courses. This online class has optional live sessions. 3 credits

CSC 103 Programming for Everyone II

This course teaches students about the fundamentals of data access, data management, and expands upon the topics learned in CSC 101. In the first half of the course, students will learn how to leverage their Python skills to treat the internet as a source of data. Students will work with HTML, XML and JSON data formats in Python. The second half of the course introduces students to the fundamentals of Structured Query Language (SQL) and database design as part of a multi-step data gathering, analysis and processing effort. As part of the course, students will build web crawlers and multi-step data gathering and visualization processes. 3 credits
PRE-REQUISITE: CSC 101

CSC 105 Web Development

This course, built in collaboration with Google, covers everything needed to build a website from scratch. Students will learn the core technologies which power modern websites: HTML, CSS and Javascript. Students will also build a website of their own from start to finish. By the end of this course, a student will be able to create interactive, aesthetically pleasing websites for any purpose imaginable. This online class has optional live sessions. 3 credits
PREREQUISITE: CSC 101 OR DTAN-140

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

CSC 140 User Experience I

The first course in a two-semester sequence studying user experience design principles, research, and testing. In this first course, students will learn what drives product usability, the basics of User Experience design and research, and how to build wireframes and prototypes. Topics include human cognition, design thinking, evaluating designs, and accessibility and universal design principles. 3 credits

CSC 203 Application Development I

The first course in a two-semester sequence studying the design and development of web applications. This course will introduce Django, a framework used for data-driven web applications to speed up development. This course also covers the fundamentals of database management skills. Students will develop their own apps in Django and use JavaScript to add animations and interactions to the sites. Basics of accessibility in app design will also be discussed. 3 credits

PREREQUISITE: CSC 103

CSC 215 Introduction to C – How Computers Really Work

A successful software developer needs to understand how computers interpret code. This course, which was built in collaboration with Google, introduces students to C: the fundamental language used to write many high-level languages, including Python. By the end of this course, students will have a better understanding of how computers turn code into ones and zeroes use that understanding to build more efficient programs. 3 credits

PREREQUISITES: CSC 103, MAT 115.

CSC 220 Product Development

An examination of the processes required to develop successful software and technology products. This course will explore the development of a product from ideation to launch, including customer needs, product teams and strategies, and user experiences. Students will complete multiple projects to develop and test a software product. 3 credits

CSC 240 User Experience II

This course builds upon User Experience I and teaches students how to build effective user experiences through a rigorous process of implementing best practices, testing designs and iterating. This course will also cover topics such as branding, color palettes, user journeys, and designing for multiple platforms. To successfully complete this course, students will need to build a mobile app or website prototype and iterate upon it based on user feedback. 3 credits

PREREQUISITE: CSC 140

CSC 303 Application Development II

Building web applications is a core skill in today's workforce. This class helps students combine the skills learned in previous app design and web development courses to create an app from start to finish in both an individual project and a group project setting. Students will be exposed to all facets of application development: front-end design, back-end design, and project management. 3 credits

PREREQUISITES: CSC 105 and CSC 203

CSC 305 Cross-Cultural and Accessible Web Design

Success in a global workforce requires the ability to design with and for various communities, groups, and cultures. This course will prepare students to look at application and web design principles through a global lens to create appropriate and culturally responsible designs. This course will also explore accessibility issues in modern web design and identify methods by which applications can become more accessible to a wider audience to improve user experience. 3 credits

PREREQUISITES: CSC 105, CSC 140

CSC 306 Data Structures

This course will teach you how to understand and use data structures. Data structures are used by almost every program and application to store, access and modify the vast quantities of data that are needed by modern software. By the end of this course students will learn what data structures are and learn how to use them in the applications built. This online course has optional live sessions. 3 credits

PREREQUISITES: CSC 103, MAT 140 or MAT 160

CSC 404 Algorithms

This course explores algorithms from a coding-focused perspective, using Python. Students will learn about the issues that arise in the design of algorithms for solving computational problems and will explore a number of standard algorithm design paradigms and their applicability. Students will also become familiar with concepts of runtime, recursion, implementation and evaluation. This course features a heavy emphasis on practical application of algorithms to common development and engineering challenges. 3 credits.

PREREQUISITE: CSC 306

CSC 406 Goal-Oriented Web Design

In this course, students will propose and build a website from scratch, based on the demands of a fictional client base. Students will utilize all components of proper web design: intent, design, and execution. This project-based course will combine skills from previous courses in user experience, graphic design, backend development, and project management. 3 credits
PREREQUISITES: CSC 101, CSC 105, CSC 240

CRIMINOLOGY

CRM 100 Introduction to Criminology

This undergraduate course offers 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 United States criminal justice system, the police, and the courts. 3 credits

CRM 101 Introduction to Criminal Justice

This undergraduate course will provide students with an overview of the criminal justice system, including historical development, present status, and suggested reforms. Students will learn the terminology of the field and trends in policies and procedures related to victims, offenders, police, attorneys, courts, and corrections. Additionally, students will examine their own beliefs and attitudes as related to crime and response to crime. 3 credits

CRM 187 (SO 187) Law Enforcement in the 21st Century

This undergraduate course provides an overview of the American law enforcement system. After reviewing historical law enforcement events and their subsequent impact, students will understand current law enforcement methods and structure. Students will consider how current events are impacting and affecting change in law enforcement in the United States. Students will also be challenged to see the limitations of today's law enforcement and adaptations that need to be implemented to answer these challenges. 3 credits

CRM 240 Cyber and White-Collar Crimes

This undergraduate course addresses the concepts and practices of cyber and white-collar crimes. Students will learn the methods, causes, and consequences of such crimes, and how they have increased dramatically over the past decade. Additionally, specific focus will address the systems where these sorts of criminal activities are more common such as in the healthcare, corporate, educational, housing, and environmental systems. 3 credits

CRM 285 (SO 285) Violence & Victims of Crime

This undergraduate course examines the crime victim as a larger part of our society and as a participant in the criminal justice system. Students will study criminal victimization in the United States, the role the victims play in the criminal justice process, their personal victimization, and victim-targeted service programs. 3 credits

CRM 289 Evidence and Procedures

This undergraduate course provides a unique learning opportunity of classroom instruction and practical application in crime scene processing. The students will receive instruction on the laws regarding evidence, identifying physical evidence, management of a crime scene, proper documentation, and collection of evidence. The course combines classroom lectures with hands-on experiences including participation in a mock crime scene investigation. Upon completion, the students will acquire knowledge and skills in the basics of crime scene investigation. 3 credits

CRM 300 Crime and Mental Health

This undergraduate course examines mental health issues and how they interact within the United States criminal justice system. Students will learn how certain diagnoses are more likely to lead to police intervention, as well as how today's prisons have become modern-day asylums. Students will also consider how insanity and psychosis differ, the limitations of assessing for dangerousness, and how competency to stand trial is determined. Special attention will be paid to learning practical skills in analyzing data, writing evidence-based reports, understanding DSM-5 diagnoses, and considering federal and state laws that impact clinical practice in the criminal justice system. 3 credits

CRM 303 (SO 303) Prisons and Society

This undergraduate course examines the history, structure, and functions of corrections, and the legal and philosophical basis for the punishment of criminal offenders, including the role of corrections as one of the three major components of the criminal justice system. The course will also discuss repercussions of the status of the correctional system and its relationship with society. 3 credits

CRM 315 (SO 315) Juvenile Delinquency

This undergraduate course provides 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

CRM 319 Serial, Spree, and Mass Murder

This undergraduate course examines the phenomena of serial, mass, and spree killing with a specific focus on the demographic features, mental health issues, and neurobiology differences noted between these three types of murder. Students will also identify cultural aspects common to these types of violence and potential interventions that could be used by government, schools, and mental health systems to reduce these crimes. Lastly, cross-cultural comparisons of the United States with other countries will be examined to help understand the differences in murder rates, the types of victims targeted, and the ways that media portrays these murders. 3 credits

CRM 345 Pre-Professional Development Seminar

This undergraduate course aims to prepare students prior to their field placement experience (CRM 450). The purpose of the course is to prepare students for finding, applying, and securing an internship that aligns with their major goals. Topics will focus on preparation for internships and career jobs after completion of a bachelor's degree. Those topics will include, but are not limited to, identifying a career area of interest, finding jobs in that profession, resume/cover letter writing, interview and communication skills, and professional/ethical skills needed in the fields of interest. 2 credits

CRM 375 Race, Class, & Justice

This course is designed to assist students in engaging in critical examination of the interplay of race, class, and crime in the United States. Attention will be given to historical, sociological, economic, and political reasons that underlie why Black Americans and other racial minorities are treated unequally and represented disproportionately in the criminal justice system. This course highlights obstacles to racial justice including criminalization of behaviors along racial and class lines. 3 credits

CRM 400 Contemporary Issues in Criminal Justice

This undergraduate course will cover current and relevant issues in criminal justice. Areas of focus will vary based on current events and "hot topics" related to the discipline. Students will learn to identify current trends and patterns in the field of criminal justice as a result of completing this course. Possible solutions and policy suggestions will be discussed based on the current contemporary issues covered. 3 credits

CRM 450 Capstone 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

DATA ANALYTICS

DTAN 101 Introduction to Data Analytics

In this introductory course, students will learn basic terminology and an introduction to several fundamental aspects of data analytics, including sampling, cleaning, managing, predicting, and exploring data. Students will perform basic statistical analyses on a variety of data sets and will use these statistics to draw conclusions and make data-driven predictions about future events. Students will gain experience expressing these conclusions in oral and written reports to their peers. An introduction to the ethical issues involved in data analysis, storage, and acquisition will also be covered. 3 credits

DTAN 140 Introduction to Programming in R

This course introduces students to R, a widely used statistical programming language, using the RStudio integrated development environment. Students will learn to manipulate data objects, produce graphics, read in tabular datasets, and generate reproducible reports aggregating data into summary tables and appropriate visualizations. Students will also gain experience in applying these acquired skills to various real-world datasets. 3 credits

DTAN 150 Introduction to Programming in Python

This course introduces students to Python, a widely used general purpose programming language, using the JupyterLab integrated development environment. Python is a language with a simple syntax, and a powerful set of libraries. As an interpreted language, with a rich programming environment, students will be able to learn to manipulate data objects, produce graphics, read in tabular datasets, and generate reproducible reports aggregating data into summary tables and appropriate visualizations, using a notebook-style development environment. Students will also gain experience in applying these acquired skills to various real-world datasets. 3 credits

DTAN 220 Data Visualization

Data visualization is a key component of analytics, in which we effectively communicate the meaning of data to an observer through visual perception. This course will cover different types of quantitative and qualitative data and how they can be properly displayed to be perceived well by the reader. We will also discuss some design elements for effective visualization and data storytelling, and we will assess published visuals in the media to determine what separates a good visual from a bad one. 3 credits

DTAN 310 Big Data and Data Systems

This course provides an overview of big data and the types of analytics used to process this data, as well as the associated technical, conceptual, and ethical challenges of dealing with big data. Advantages and disadvantages of big data research are discussed using real-world examples and case studies. This course includes hands-on exercises working with big data in Python. 3 credits

PREREQUISITE: DTAN 150

DTAN 498 Senior Experience

An independent, professional experience for senior data analytics majors within their field, designed in consultation with a faculty mentor. May involve research, an internship, or an independent project. Requires weekly meetings with mentors, plus additional work outside of class to complete the project. Open to data analytics majors only. 3 credits

PREREQUISITE: MAT 399

DTAN 499 Internship in Data Analytics

An independent, professional experience for senior data analytics majors within their field, designed in consultation with a faculty mentor. Student internships must meet departmental and university requirements. Students must meet with the course instructor to discuss and obtain approval for the internship experience. Open to data analytics majors only. 6-12 credits

EARLY CHILDHOOD EDUCATION

EC 200 Child Development (Birth to Age 9)

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 9 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 birth to 9 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 intra-variability 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, social-emotional, 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 intra-variability 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 206 Child Development: Ages 6-9

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 AND 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 the ability to assess children's 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 Assessment for Early Childhood Education

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 315 STEAM Lab and Maker Space

Students will choose a STEAM project to research, develop, and implement into an appropriate setting (school, after-school program, museum). Students will utilize the design process and a variety of resources (educational technology, materials, tools, machines) in a Makerspace environment to safely and efficiently develop solutions to problems that require integration of concepts and skills from multiple disciplines. Seminar content includes cross-disciplinary content instruction and pedagogical strategies for working with a variety of learners. Learners will demonstrate competencies that include planning and organization; assessment of learning; reflection on teaching; interdisciplinary collaboration; and inquiry-based approaches to teaching and learning. Practicum required. 3 credits

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 is 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

PREREQUISITES: EC 200, EC 201, EC 207

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 curricula. The critical areas of cultural diversity, racism, gender equity, and real-world problem solving, as they relate to the PreK through grade four curricula, 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. 6 credits each

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 designated 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

ECONOMICS

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

EO 104 (PH 102) Political Philosophy

Overview of key figures in political philosophy such as Plato, Aristotle, Locke, Hobbes, Marx, and Machiavelli. The course goals will be to relate the political and/or economic theories of these crucial thinkers to contemporary political and economic issues of today. The course will also focus on how their thoughts have shaped the understanding of political and economic concerns. 3 credits

EO 201 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

EO 202 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

EO 408 Labor Relations

A study of the development and growth of the labor movement, including social movements, implications, and evolution of the legal framework for collective bargaining in the private and public sectors. Topics include preparation for bargaining and the costing of contracts, bargaining power, negotiations, impasses, the role of women in labor movements, and the future of labor-management relations. 3 credits

EDUCATION

ED 200 Foundations of Educational Practice

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 on 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 they establish goals. 3 credits

ED 225 Reggio Inspired Teaching and Learning

This course explores the approach of teaching and learning that originated in Reggio-Emilia, Italy. It will provide an overview of the history, theories and foundational principles of the Reggio Emilia Approach, giving students the opportunity to engage in dialogue and to think deeply about their own contexts of teaching and learning. Students in the course will engage with foundational principles such as the 100 languages of children and the image of the child as it relates to the early childhood classroom. Through exploring the role of the teacher, possibilities of the classroom environment, child-lead learning, and artistic expression, participants will learn and experience the value and deep potential of reframing education in this way. 3 credits

ED 250 Instructional Digital Technology

This course is designed to train future teachers in the theory and practice of the use of appropriate and useful instructional technology. Students in the course will learn to discern the appropriate moments that technology will aid instruction and not. Students will develop an understanding and practical application of the SAMR model for instructional technology. Ultimately, the goal of the course is for students to understand the theory behind appropriate and equitable use of technology in the classroom and school environment and have the ability to continuously update their set of technology tools as technology develops. Students will demonstrate their understanding of the concepts in writing and discussion, then prove their ability to practically apply these concepts as skills in lesson plans and presentations. 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 (visual 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 366 International Field Experience

This study abroad includes 25 hours of hands-on practical experience in one of the following areas: 1) a rural school, 2) a rural health clinic, or 3) a business office for tourism. Placement will vary depending upon a student's discipline of study. Opportunities to interact with a variety of related service providers enhance the experience while offering students multiple perspectives and techniques for enriching the lives of individuals living in a developing country. In addition to the field placement, students will gain an understanding of the culture, history, and experience the natural beauty of the country through sightseeing tours and activities. 1 credit

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 or 3 credits

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

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

EN 102 Introduction to Writing and Research about Literature

EN 102 is designed to help students develop their skills for researching, analyzing, and writing about literary texts. The course is organized into four modules: "Introduction to Literary Criticism," "Introduction to Literary Theories," "Researching Literary Topics," and "Applying Literary Theory and Criticism to Research Writing." The first three modules focus on developing specific skills and knowledge essential to the practice of literary analysis. The fourth module brings those skills together in a final research project focused on a literary text. Skills learned in these modules reflect the English Program's learning outcomes for English majors. During the course, students analyze fiction, poetry, drama, and creative nonfiction. They also learn about literary theories such as Ecocriticism, Film Theory, and Queer Theory, and build more advanced research and writing skills using the lenses of those theories. Students demonstrate their understanding of course materials through presentations, short writing assignments, tests, and a final research assignment. Throughout the semester, students provide support and critical thinking about each other's ideas in discussions and workshops. This course meets an English major requirement, but any student who enjoys literature and wants to develop literary analysis skills is welcome.

PREREQUISITE: SKW-101

EN 104 Studies in Poetry

This course is open to all students from all majors. It focuses on the basics of the craft of poetry writing. 3 credits

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 the 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

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 Creating Character

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

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

EN 208 Finding Your Poetic 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

EN 210 Special Topics

This course provides a focused examination of a particular topic. 3 credits

EN 216 Writing the Body

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 original creative writing. 3 credits

EN 217 Writing the World

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

EN 218 Writing Your Life

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

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

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 221 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

EN 222 Arthurian Legend

This course provides an introduction to works in the development of Arthurian tradition. 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 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 Prose Workshop

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

EN 233I (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

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

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

EN 241 Experimenting With Craft

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 Shaping Story

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

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

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 262 (WS 262) Women's Writing on Illness and Healing

Women's Writing on Illness and Healing is an interdisciplinary course about women writers whose works explore mental health, physical health, and healing from a social justice perspective. Students read a range of literary genres on topics such as mental health/illness, healthcare workers, family and disability, facing mortality, and healing, hope, and grace. The course uses both literary analysis and Women's and Gender Studies approaches. 3 credits

EN 265 Myths and Monsters: Classical Backgrounds

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 *O Brother Where Art Thou*, and the poems of Louise Glück. 3 credits

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

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 286I (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 300I (WS 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

EN 301 Shakespeare in the 21st Century

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 film adaptations and (when possible) live performances. 3 credits

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

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

EN 310 Irish Literature

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

EN 319 Victorian Writers

This course examines novels by 19th-century British writers and the cultural/historical contexts for the works. 3 credits

EN 320 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

EN 334 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 full-bodied stories that can enrich and enthrall an audience. Students respond to in-class writing prompts and participate in workshoping. 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 non-British works of literature. 3 credits

EN 343 Exploring 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 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 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

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

EN 360 Development of English Drama

This course traces the development of English drama from its roots in the tenth-century liturgical service, *Quem Quaeritis*, through the late nineteenth-century plays of George Bernard Shaw and Oscar Wilde. The readings include famous works by Christopher Marlowe, William Shakespeare, Ben Jonson, Aphra Behn, and William Congreve, as well as lesser-known works, which had an important influence on the development of the drama. 3 credits

EN 361 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 EN 360

EN 370 Writing 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

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. 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

EN 410 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 variety 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

EN 420 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. 3 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 225 Peace/Justice Themes in American Literature

EN 235 Playwriting

EN 318 Romantic Writers

EN 321 American Novel

EN 322 American Drama

EN 323 American Poetry

HEALTHCARE DATA ANALYTICS

HIM 101 Introduction to Health Informatics and Information Management

This course introduces the health information management profession, the role of health informatics, and the role of technology in today's healthcare environment. Students will learn about the structure of the U.S. Healthcare system, key legal and ethical issues in health informatics and information management, cultural competence and diversity and forces impacting the state of the U.S. healthcare system. 3 credits

HIM 102 Medical Terminology

This course provides students with a working knowledge of medical terminology by exploring the root words, suffixes and prefixes of the vocabulary used in healthcare settings. Students review the nervous, skeletal, cardiovascular, muscle and other major systems of the human body, and they discuss terms related to physiology, anatomy, and pathological conditions. 2 credits

HIM 103 Medical Terminology

This course provides students with a working knowledge of medical terminology by exploring the root words, suffixes and prefixes of the vocabulary used in healthcare settings. Students review the nervous, skeletal, cardiovascular, muscle and other major systems of the human body, and they discuss terms related to physiology, anatomy, and pathological conditions. 3 credits

HIM 202 Electronic Health Records

This course reviews the many issues and challenges related to the current EHR landscape. Content includes current and planned activities and evidence based in quality, information technology design and development opportunities, clinical terminologies, EHR and analytics platforms and security concerns. There is also a focus on the use of information assets and best practices related to data analytics as it relates to health services and health and wellness. 3 credits

HIM 203 Clinical Classification Systems I

This is the first of two courses that focus on clinical terminologies, standards, and documentation as it relates to both clinical care and administrative viability of the health system. This course introduces students to clinical classification systems, standard terminologies, and standards for health documentation compliance. Students are also introduced to health data analytics and the use of viable data sets. 3 credits

HIM 204 Clinical Classification Systems II

This is the second of two courses that focus on clinical terminologies, standards, and documentation as it relates to both clinical care and administrative viability of the health system. This course focuses on the clinical, financial and population health/research implications of medical coding as well as the policy and leadership implications of clinical documentation improvement initiatives. 3 credits

PRE-REQUISITE: HIM 203

HIM 206 Legal Aspects of Electronic Health Records

This course explores laws, regulations, and policies that govern the management of electronic health record platforms and data. Principles such as security, privacy, and confidentiality are discussed in the content of the increasingly wide use of electronic records in health economy. Education of stakeholders and ethical implications of handling health information are reviewed. 3 credits

HIM 301 Health Informatics Topics

This course is a strategic overview of how informatics systems and data are utilized in healthcare and health services. Topics such as information governance, information access, and how organizations secure data are addressed. Leadership topics such as how organizations leverage informatics solutions to improve outcomes are also discussed. 3 credits

HIM 302 Health Informatics and Analytics

This course introduces learners to the practice of business intelligence and data analytics as they relate to health and health services. The course focuses on the concepts related to business intelligence applications in informatics as well as tools and technologies used to perform data visualization and data analysis. The course also addresses leadership level topics related to health exchange and the technical management of data assets. 3 credits

HIM 303 Health Data Statistics

This course reviews the health information management quantitative concepts related to calculations that are commonly used in hospital, physician, and community settings. Statistical concepts related to both descriptive and inferential statistics are also addressed. Learners also work with detailed health information analytics concepts such as data dictionary development and the relationship between data management and determinants of health quality including financial and clinical aspects of health outcomes. 3 credits

HIM 401 Topics in Health Quality and Regulation

This course will review fundamental issues surrounding information management in the ever-changing healthcare environment, and the regulatory requirements guiding decision makers. The concepts relative to health care informatics and information systems - as well as their application to support clinical and administrative decision-making - will be examined. 3 credits

HIM 402 Healthcare Leadership and Management Issues

This course facilitates the students' understanding and use of health information, along with leadership strategies, in the management of hospital systems. Change management, focusing on outcomes and project goals/deliverables, is a focus of the course. Health industry case studies will be used to highlight issues, as well as explain lessons learned. 3 credits

HIM 403 Health Data and Information Governance

This course focusses on the application of data management, measurement, and statistical analysis principles to address patient safety and quality improvements. Principles and use of software assurance tools, code analysis, as well as using secure web services will be reviewed. 3 credits

HIM 404 Healthcare Project Management

This course reviews the necessary project management skills needed to lead health information and data analytics efforts. Students will learn how to create productive and effective management teams in the health care environment, while paying special attention to data security, patient safety, and outcomes. 3 credits

HIM 405 Topics in Clinical Research and Population Health

As an ever-changing field of study, clinical research and population health relies on evidence-based data to improve patient outcomes. This course will review current topics in health care related to clinical research and population health to present the student with a broad overview of current activities and issues in the field of study. 3 credits

HIM 406 Topics in Personalized Medicine

Personalized medicine is a process where, through data analysis and other means, patients receive better diagnoses, earlier interventions, more effective and efficient therapies, and a more customized treatment plan. Through predictive modeling and analytics - facilitated through various health information software programs - precision medicine can help determine each person's unique disease susceptibility, identify preventive measures and enable target therapies to facilitate wellness. Personalized medicine, through health information management and analytics, is the future of medicine. 3 credits
PREREQUISITE: HIM 101

HEALTHCARE MANAGEMENT

HLT 204 Introduction to Healthcare 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.

HLT 305 Concepts in Healthcare Finance

An overview of the essential elements of healthcare finance processes and financial management concepts. Topics will include billing and coding for services provided, financial environment of healthcare organizations, legal and regulatory influences on health care, revenue from health care services, managed care organizations, financial reporting, and analyses processes in different healthcare entities. 3 credits

HLT 306 Financial Management for Healthcare Professionals

A concentration in the financial management aspects of healthcare organizations. This course will cover the following topics for students interested in the healthcare administration arena: strategic financial planning concepts and processes, costing processes in healthcare organizations, control functions of healthcare managers, capital project analysis, consolidations and mergers in healthcare organizations, capital formation, and cash management. 3 credits

HEALTH SCIENCES

HSC 101 Introduction to Health Sciences

This course will examine the details regarding the focus and scope of practice for various health care professions. Practitioner roles as part of an inter-professional health care team will be explored. The U.S. health care system will be briefly discussed including policies, areas of reform, and reimbursement. Health care professions will be presented through discussion and lecture. Students' knowledge will be further augmented via case studies, classroom assignments and presentations. This course will enhance the ability of students to make decisions regarding future areas of professional study and increase their understanding of health care as a whole. 1 credit

HSC 102 Emergency Care and Personal Safety

This course will provide students with essential life-saving skills necessary to act as first responders in emergency situations. First responders evaluate and treat patients, acting as transitional care givers until more advanced medical help arrives. In addition, this course will address psychological and ethical issues related to emergency medical care. Successful completion of this course could lead to CPR/AED and First Aid certification. 2 credits

HSC 103 Standard Safety Precautions for Healthcare Professionals

This course presents an overview of universal/standard precautions recommended by the Center for Disease Control (CDC), reviews the Office of Safety and Health Administration's blood borne pathogen regulations, and covers prevention of transmission of various infectious diseases. Responding to emergency situations (fire, medical codes, chemical exposures, etc.) will be covered. 1 credit

HSC 200 (PH 200) Global Health

The course introduces critical global health concepts, including the delivery of healthcare and health ethics. It compares global data to data from the US to understand the social determinants of health and healthcare. The course covers several topics, including global health priorities, socioeconomic and environmental determinants of health, the relationship between health and human rights, and global health ethics. 3 credits

HSC 201 (PH 201) Cultural Competencies in Healthcare

The course examines the influence of cultural beliefs, values, and practices on health and illness and healthcare provision. It uses recent models and scenarios to enhance the ability to understand, evaluate, and provide culturally sensitive and competent human services to a diverse population. The course elaborates on the conceptual framework by exploring the relevant concepts, such as cultural competence, diversity, and health equity; studies health disparities and social determinations of health and the impact of religions and spirituality on cultural diversity; and focuses on specific populations, including the elderly, sexual minorities, and people with disabilities. 3 credits

HSC 220 Physics of the Human Body

This course provides an introduction to human anatomy and body systems. The laws of physics are used to explain several bodily functions including the mechanics of muscles and body movements, fluid mechanics of blood and air flow, hearing and acoustic properties of the ears, vision optics, heat and energy, acoustics and electrical signaling. The effects of various environmental phenomena on the body are explored. 3 credits

PREREQUISITES: BIO 205, BIO 206

HSC 221 Clinical Kinesiology

This course is designed to prepare the Health Science student to understand the relationship of the musculoskeletal system and how it correlates to the development and mechanics of body movements. Other course components include analysis of movement, anatomical planes, and physiological and psychological principles affecting human movement and sports function. This course will also focus on correct postural alignment to initiate and sustain an effective training response to reduce the risk of injury. Additionally, the student will complete multiple case studies related to data collection and treatment of the patient. Three hours of lecture per week. 3 credits

PREREQUISITES: BIO 205, BIO 206

HSC 222 Epidemiology

This course is an introduction to epidemiology for students majoring in the health sciences. This course introduces the principles, concepts, and methods of epidemiologic investigation of health-related events and processes. The biological, behavioral, sociocultural, and environmental factors associated with the etiology and distribution of health and disease will be discussed. Three hours of lecture per week. 3 credits.

PREREQUISITES: BIO 205, BIO 206

HSC 223 Pathology for Rehabilitation

This course is designed to prepare the Health Science student to work with patients presenting with diagnoses commonly seen in the rehabilitation setting. Topics will include an understanding of pathology and medical intervention for a variety of body systems as well as the tests and measures and proper interventions utilized by Health Science professionals. Additionally, the student will complete multiple case studies related to data collection and treatment of the complex patient 3 credits

PREREQUISITES: BIO 205, BIO 206

HSC 240 Introduction to Audiology

This course provides an introduction to audiological science. Students will demonstrate a comprehensive knowledge of the essentials of hearing science, basic audiological practices, audiometric interpretation, auditory pathologies and associated audiological findings, and management of hearing disorders. 3 credits

PREREQUISITE: BIO-206

HSC 241 Clinical Phonetics: Theory & Application

This course provides an introduction to phonetics. This includes broad coverage in articulatory phonetics, speech acoustics, speech aerodynamics, speech perception, and phonetic transcription. Particular topics covered include place and manner of articulation, airstream mechanisms, the aerodynamic myoelastic theory of vocal fold vibration, source-filter theory, the relation between airflow and turbulence, resonance and anti-resonance, speech suprasegmentals, hearing mechanisms, perceptual distance and scales, phonological features, and allophony. 3 credits

PREREQUISITE: BIO 206

HSC 242 Speech and Hearing Science

This course focuses on the acoustic principles of speech and hearing; analysis of the acoustic characteristics of speech and physiological correlates; and speech perception. 3 credits

PREREQUISITES: HSC-240, HSC-241

HSC 300 Health Science Seminar

Health Science Seminar is designed to provide students majoring in the Health Sciences with experience in reading, writing and presenting scientific information related to the discipline. This course will introduce undergraduate students in Health Science to literature searches, current topics in the field, research and research methods, and critical evaluation of data. Students will be able to synthesize liberal arts perspectives, within the framework of the Health Science discipline to support robust analysis of specific issues, topics, or ideas in the Health Sciences. Junior Seminar also serves as a preparation (and a prerequisite) for Senior Experience (HSC-400). 2 credits

PREREQUISITES: HSC 102, HSC 103, HSC 200, HSC 201

HSC-320 Introduction to Assessment

This course is designed to prepare the Health Science student to perform comprehensive healthcare assessments on individuals of various age groups. Other course components include a specific emphasis on patient health history, thorough physical examination, standardized tests, and developmental screenings. This course will also focus on health risks and identification of stressors during an accurate healthcare assessment. 3 credits

Pre-requisites for this course: BIO-205 and BIO-206

HSC 400 Health Science Capstone

Health Science Capstone is designed to provide students majoring in health science with experience in reading and writing scientific information focusing on an area of specialization within the profession. Capstone projects will be inquiry and practice-centered and will draw upon areas of interest to the student and focus from the program. All capstone projects will require the student to synthesize and integrate knowledge acquired in previous coursework and other learning experiences and to apply theory and principles in a situation which approaches some aspect of professional practice. 3 credits

PREREQUISITES: HSC-102, HSC-103, HSC-200, HSC-201, and HSC-300

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

HS 145 History of Postwar America

This course examines the ways life changed in the period from the end of World War II in 1945 through the end of the 20th century, with particular focus on culture and civil rights. We will look at developments in music, film, the arts, and other humanities disciplines as well as developments in politics, civics, and jurisprudence. Our goal is to develop an understanding of how this 55-year period has influenced our present lives, and connections will be drawn between things we experience in the 2020s and their roots in this period. 3 credits

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 are examined. 3 credits

HS 170 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

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

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

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 Xiaoping; 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 204 Working-Class Stories

An exploration of working-class experience in the United States as represented in poetry, fiction, memoir, and other literary genres. The course emphasizes the diversity of the working class, which in every era includes most people. Themes include migration and immigration; creativity, agency, and resistance; the dignity of work and the degradation of the worker in class society; and conflict, solidarity, and the common good. 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

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

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 are applied to investigate historical problems. 3 credits

HS 213 Europe Since World War II

A study of the reconstruction of European politics and society after 1945: the 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

HS 219 (WS 219) Boy Cultures

The course is designed to invite male and female students who have a scholarly and/or personal interest in both understanding the complexity of the subject and considering implications for positive changes in areas where males struggle. The class explores constructs of masculinity in the U.S. using an intersectional approach, which assumes that there are multiple masculinities that intersect with race, class, ableism, sexuality, and gender identity. Masculinity is a powerful vehicle that motivates the behavior of boys and men, and if it is redefined and constructed as responsibility for others (and not domination) the impacts can be tremendous. 3 credits

HS 226 Caribbean History

Study of key themes and major events in the Caribbean from initial European contact to emergence of independent states. Cross-cultural 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

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 1840s, and continuing through the outbreak of the Civil War. A short section on contemporary issues will conclude the course. 3 credits

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

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

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. The focus is music that exists because of the use of electronics rather than music that simply uses electronics. The musical and social spaces of today re-conceptualize aural reality through 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

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

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

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

HS 352/353/354 Special Studies in American History

HS 380I (WS 380I) Special Topics in Women's History

HS 392/393 Special Studies in European History

Topics vary. 1 to 4 credits

HS 394 Modern American Family

The course draws on a brief review of the history of the family in the West. Students will consider the evolution of the American family and address how it is currently defined in our society. There are many different views of what constitutes or should constitute a family. Gender, social class, race, ethnic, and inter/generational perspectives will be introduced. What is traditional and non-traditional marriage? Students will develop a nuanced understanding of the impact of sexuality, family violence, children and daycare, parenting, and divorce. 3 credits

HS 405 Internship

Career and professional opportunities in history including mass media, politics, historical preservation, curating, and teaching. Credits vary

PERMISSION REQUIRED PRIOR TO REGISTRATION.

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 413/414 Special Studies 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

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 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 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 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: SKW 101, SKC 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, IT 150SL OR IT 250SL AND IT 143

IT 250SL 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

IT 290I (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

IT 305 Application Programming

This course covers the design and construction of object-oriented programs. Students learn how to build event-driven GUI programs and command-line programs using commercial software development environments. 3 credits

PREREQUISITE: IT 205

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. 3 credits

PREREQUISITE: IT 150 OR IT 150SL OR IT 250SL

INTERNATIONAL

INTL 412 Global Health and Wellness Immersion

The Study Abroad program offers an international experience in a UPMC affiliate hospital in Palermo, Italy. It includes 90 hours of practical experience working with healthcare providers specializing in transplant surgeries and cancer care. Nursing students will complete clinical hours in the transplant institute, Social Work students will work with community care professionals. Opportunities to interact with a variety of related healthcare providers enhance the experience while offering multiple perspectives and procedures in patient care. In addition to the clinical experience, students will gain an understanding of Sicilian culture, history, and explore Sicily through sightseeing tours and activities. 1-3 credits

MATHEMATICS

MAT 100 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 105 Basic Mathematics Competencies

This course provides a multi-faceted approach to development of basic mathematics content competencies that align with the requirements for instructional certificate candidates in Pennsylvania. The course uses both adaptive software and guided cooperative learning. Students will have individualized opportunities to develop fluency with fundamental mathematics skills in the areas of

Number and Quantity, Algebraic Functions, Geometry, and Statistics and Probability. Students will flexibly use the mathematics process skills of problem solving, communication, and making connections to prior learning throughout. Permission of instructor required. 3 credits

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

MAT 110 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

PREREQUISITE: DEMONSTRATED READINESS FOR MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

MAT 112 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

PREREQUISITES: SKQ 101 AND DEMONSTRATED READINESS FOR MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

MAT 115 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 are examined, as well as 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

PREREQUISITE: SKQ 101

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

PREREQUISITES: SKQ 101 AND DEMONSTRATED READINESS FOR MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

MAT 130 Transcendental Functions

An examination of properties, algebra and graphs of trigonometric, exponential and logarithmic functions. Introduction to graphing and limits as a prerequisite for calculus. 3 credits

PREREQUISITE: MAT 110.

MAT 140 Applied Calculus

An introduction to calculus and its applications. Topics include limits, continuity, the rules of differentiation, implicit differentiation, first and second derivative tests, curve sketching, anti-derivatives definite integrals and the area under a curve. Emphasis is placed on applications in business, economics, and life sciences. 4 credits

PREREQUISITE: DEMONSTRATED READINESS FOR MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

MAT 150 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

PREREQUISITE: DEMONSTRATED READINESS FOR MATHEMATICS BY PLACEMENT OR COMPLETION OF MAT 100.

MAT 151 (CHM 151, BIO 151) 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

PREREQUISITES: CHM 111, BIO 110 OR PCS 221, MAT 160, SKW 101, SKC 101, SKQ 101

MAT 160 Calculus I

An introduction to calculus and its applications. Topics 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

PREREQUISITE: DEMONSTRATED READINESS FOR CALCULUS BY PLACEMENT OR COMPLETION OF MAT 150.

MAT 260 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 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 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 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 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 Applied Discrete Mathematics

A selection of topics from set theory, combinatorics, graph theory, algebra, Boolean algebra, formal logic, and computer science, 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 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

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 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

MAT 360 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 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

MU 115 (TR 115) Musical Theatre

This course examines the various influences that led to the creation and evolution of American musical theatre. We will study its' relevance on cultural and social history through audio, video, readings, and discussions. The textbook, *Musical Theatre: A History* (Second Edition) by John Kenrick, will serve as the main reference, while the PBS video series, *Broadway: The American Musical*, will provide added insight and multimedia from important moments and productions. 3 credits

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

MU 218 Understanding Jazz

Introduction to the complex and fascinating history and development of jazz, America's major contribution to world music. 3 credits

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

MU 240 Special Topics in Music

A course focused on a particular musical topic that varies from semester to semester. 3 credits

MU 481 Carlow Choir

Students rehearse and perform with the Carlow Choir. May be repeated for credit. 1.5 credit

NEUROSCIENCE

NEU 101 Fundamentals of Neurodiagnostics I

A one-semester undergraduate-level course which presents the practical and theoretical aspects of Neurodiagnostics with a focus on adult electroencephalography (EEG). Introduces learners to the history of EEG, basic instrumentation, epilepsy, seizure semiology, and neurodegenerative diseases. Electrode placement, recording techniques, activation procedures, and waveform recognition will be emphasized in the context of patient cases. 4 credits

NEU 201 Outpatient EEG Procedures Clinical Practicum I

A one-semester clinical practicum with a focus on outpatient electroencephalography (EEG). This course will apply theoretical concepts explored in NEU 101 and gradually prepare the learner to competently record an outpatient EEG without supervision. Twelve hours of practicum per week. 4 credits

PREREQUISITE: NEU 101

NEU 220 Neuroanatomy

This is a one-semester undergraduate-level hybrid course designed to provide students in Behavioral Neuroscience tracks with an in-depth study of the structures contained in the central and peripheral nervous systems at both the microscopic and gross anatomy levels. The course will also introduce basic research and diagnostic techniques used to investigate the nervous system. Attention will be given to clinical case studies that highlight anatomical importance. This is a 4-credit course with 3 hours of lecture instruction and 3 hours of lab instruction per week. 4 credits

PREREQUISITES: BIO-120 or BIO/PY 230 or 230I

NEU 221 Neurophysiology

This is a one-semester undergraduate-level hybrid course designed to provide students in Behavioral Neuroscience tracks with an overview of neurophysiology and current topics in neuroscience. The course will also introduce basic research and diagnostic techniques used to investigate the nervous system. Attention will be given to developing analytical and communication skills necessary to investigate and report on topics in the field. This is a 4-credit course with 3 hours of lecture instruction and 3 hours of lab instruction per week. 4 credits

NEU 300 Foundations of Neuropsychology

This course is an advanced seminar with the goal of introducing students to the theory and application of neuropsychology. This specialized subfield of Psychology aims to assess and interpret the relationship between nervous system function, cognition, emotions, and behavior; and to apply this knowledge to the design of individualized patient intervention. This course will introduce a variety of neuropsychological tests & discuss the major cognitive domains in neuropsychology, with an emphasis on the process by which such tests are interpreted in light of all of the data available. 3 credits
PREREQUISITES: BIO 110, PY 101. PRE/COREQUISITE: PY 280

NEU 399 Neuromonitoring Fundamentals

An undergraduate level course designed to gain familiarity with the individual modalities and underlying scientific principles in the field of neuromonitoring. 4 credits
PREREQUISITE: NEU 220

NEU 401 Introduction to Neuromonitoring for Surgical Procedures (Clinical I)

An undergraduate level course designed to demonstrate the preparation and operation of the neuromonitoring equipment used during surgery. The principles and practices of intraoperative neuromonitoring are introduced along with an emphasis on the types of procedures associated with intraoperative neuromonitoring. 8 credits
PREREQUISITES: NEU 220, NEU 221

NEU 402 Introduction to Neuromonitoring for Advanced Surgical Procedures (Clinical II)

Builds upon the skills developed in the first Clinical course and prepares students to work in the operating room performing Intraoperative Neuromonitoring (IONM). Over the course of the semester, students will be expected to transition into the role of the primary neurophysiologist responsible for operating the IONM equipment and for communications with the surgical team. 9 credits
PREREQUISITES: NEU 220, NEU 221, NEU 399, NEU 401

NEU 450 Neuroscience 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. Pass/Fail only

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
PREREQUISITE: MAT 150. PCS 203 IS A CO-REQUISITE FOR PCS 201 AND PCS 204 IS A CO-REQUISITE 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 complementary 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
PREREQUISITE: MAT 150. PCS 201 IS A COREQUISITE FOR PCS 203 AND PCS 202 IS A COREQUISITE FOR PCS 204. PCS 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

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 complementary 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

PRE- OR 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

PH 102 (EO 104) Political Philosophy

Overview of key figures in political philosophy such as Plato, Aristotle, Locke, Hobbes, Marx, and Machiavelli. The course goals will be to relate the political and/or economic theories of these crucial thinkers to contemporary political and economic issues of today. The course will also focus on how their thought has shaped the understanding of political and economic concerns. 3 credits

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

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

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

PH 200 (HSC 200) Global Health

The course introduces critical global health concepts, including the delivery of healthcare and health ethics. It compares global data to data from the US to understand the social determinants of health and healthcare. The course covers several topics, including global health priorities, socioeconomic and environmental determinants of health, the relationship between health and human rights, and global health ethics. 3 credits

PH 201 (HSC 201) Cultural Competencies in Healthcare

The course examines the influence of cultural beliefs, values, and practices on health and illness and healthcare provision. It uses recent models and scenarios to enhance the ability to understand, evaluate, and provide culturally sensitive and competent human services to a diverse population. The course elaborates on the conceptual framework by exploring the relevant concepts, such as

cultural competence, diversity, and health equity; studies health disparities and social determinations of health and the impact of religions and spirituality on cultural diversity; and focuses on specific populations, including the elderly, sexual minorities, and people with disabilities. 3 credits

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- to three-page papers. 3 credits

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

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, 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

PH 210 Biomedical Ethics

Study of the perplexing ethical problems of life science, biomedical research, and healthcare 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

PH 214 (BSM 214) Artificial Intelligence and Our World

This course will explore the topic of artificial intelligence and its invasion into our society. We begin with a look of the history of technology and the impact of technology on workforce. Students will explore questions of humanity, post humanity, building of big data and robotics, and military use of AI. The course is designed to introduce students to the major ethical systems in the history of Western philosophy which allows students to analyze current moral issues. The course will use the rapid expansion of Artificial Intelligence use to help us understand the moral implications of this expansive, disruptive technology. 3 credits

PH 280I (TR 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

PH 301 Public Health Ethics

Public health ethics addresses the moral and ethical concerns surrounding local, national, and global health initiatives, responses to health crises, and general environmental safety. This course explores the ethical questions raised as well as theories and frameworks applied in public health, in an effort to address issues such as the primacy of the individual over society and/or vice-versa, community ethics, and the plurality of our conceptions and understanding of justice. The relationship between individuals, communities and policy makers is explored, as this problematic triad is at the center of public health ethics issues. 3 credits

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. Gender-specific concerns and obstacles confronted by women interested in political participation and leadership will be covered. 3 credits

PH 315I (TR 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

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

PH 325I (TR 325I) Philosophy, Humor, and Comedy

Interdisciplinary class designed for philosophy or theatre minors. The class is an overview of Western comedy and humor from the perspective of the history of Western philosophy. 3 credits

PH 328I (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

PH 355 (WS 355) Feminist Philosophy

A study of philosophies of women and women's philosophies such as those of Woolf, de Beauvoir, 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 367 Clinical Research Ethics

Research with human subjects or participants is vastly different from research dealing with plants, animals, particles, or other places of matter. This is because there are additional ethical considerations that must be taken into account. The goal of clinical research is to improve health by identifying, developing, and making available interventions that prevent, improve, or cure maladies. This course addresses the ethical dimensions of clinical research ethics by exploring dominant ethical frameworks and applying them to timely and critical issues in clinical research. 3 credits

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 students, 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, possibly as well as particular issues and problems that the philosopher addresses. Credits vary

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

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

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 200 (SSC 200) 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 exploration of globalization and the role of the media in this process. 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

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

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: 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 United States 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

PREREQUISITE: 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: 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

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 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

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; 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
PREREQUISITES: POL 101, SKW 101

POL 280 Immigration in the United States

Social workers and professionals in a range of fields will work with immigrants and need to be prepared to bring both knowledge and cultural humility to their work. In this course, students will learn about immigration within the context of the United States and the local community. They will learn about refugees and immigrants using an intersectional approach by listening and reading about the lived experiences of these populations. Students will also explore the political and legal atmosphere for immigrants today. Finally, students will learn concrete skills for working with refugees and immigrants in the context of helping professions. 3 credits

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

PREREQUISITES: POL 101, OR SO 152.

POL 290I (SO 290I) 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

POL 290I (IT 290I) 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-government, data mining, data privacy, telecommunications, and litigation. 3 credits

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

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 United States 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; SKW 101

POL 327 (RC 327) Respiratory Therapy Education

The course examines the key educational concepts including teaching and learning strategies and techniques, learner characteristics, learning styles, technology in education, and the evaluation of teaching and learning. This course will also extend into the ethical, legal, and economic foundations of the educational process, health literacy in the adult client population, gender, socioeconomic, cultural attributes of the learner, and educating learners with disabilities. 3 credits

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, SKW 101.

POL 335 Mock Trial and Court Advocacy

POL 336 Advanced Mock Trial and Court Advocacy

These courses provide 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

PREREQUISITE: POL 335 IS A PREREQUISITE FOR POL 336.

POL 350 Special Topics

An analysis of selected topics in political science. This course is organized as needed to examine emerging events or timely issues in the

discipline or take advantage of special expertise by an individual scholar. 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 ten 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

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 healthcare practice issues are discussed. Political forces that influence change in contemporary health care are examined. Global differences and their relationship to American healthcare practice are explored. The student takes an active role in the policy process. 2 credits (2 theory; 0 clinical)

PREREQUISITE: COMPLETION OF ALL JUNIOR LEVEL NURSING COURSES.

POL 437 (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 healthcare environment. Legal and ethical principles that guide professional nursing practice are discussed. Political forces that influence change in contemporary health care and healthcare 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.

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

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

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

PY 155 Designing Your Life I; Orientation to Psychology

An orientation to the psychology major, this course introduces students to psychology as a field of study and as a major. Students will be introduced to what to expect as a psychology major, including writing using APA formatting. This course will use principles and concepts from psychological science and related areas in order to aid students in planning their lives through their college years and beyond. 1 credit

PREREQUISITES: PY 101

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

PREREQUISITE: PY 101

PY 205 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

PREREQUISITE: PY 101 or PY 122

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

PREREQUISITES: PY 101 or PY 122

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

PREREQUISITES: PY 101 and PY 122

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

PREREQUISITE: PY 101

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 healthcare 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

PREREQUISITE: PY 101

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 220 Wellness and Resilience

The purpose of this course is to teach undergraduate students the skills for having resilience in the face of commonly experienced stressors and difficulties. Resilience is the ability to both survive and thrive. Resilience is not only about your ability to positively adapt in the face of challenging circumstances (survive), it is also about learning the positive skills, strategies and routines that enable you to live a happy, fulfilling, and successful life (thrive). This course will provide you with a personalized set of strategies and skills for self-care and optimize your academic and social experiences while at Carlow University and beyond. 3 credits

PY 230I/230 (BIO 230I/230) 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.

PY 235 Special Topics in Psychology

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. 3 credits

PY 255 Designing Your Life II: Career Formation

This course focuses on the practical details of “designing one’s life” in terms of career formation. Topics will include personal qualities tied to life success, mentors and networking, resume preparation, and career readiness. 1 credit
PREREQUISITE: PY 101.

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
PREREQUISITE: PY 101

PY 270 (SO 270, SW 270) Cultural Humility in Social Work

This course provides an introduction to anti-racism, diversity, equity and inclusion (ADEI) in practice for social workers and other professionals. Students will gain knowledge about the pervasive impact of white supremacy and privilege in society and how to use knowledge, awareness and skills to engage in anti-racist and anti-oppressive practice. This requires practicing cultural humility, which involves being self-reflective as well as learning about how different identities intersect to shape one's life as well as those of others. Empowerment and a recognition that clients and communities are experts of their own lives is the foundation of this approach. 3 credits

PY 280 Cognitive Psychology

An exploration of the basic concepts and contemporary topics in cognitive psychology. Topics to be covered include perception, attention, pattern recognition, consciousness, and memory; and 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 students 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
PREREQUISITE: PY 101 WITH A GRADE OF C- OR HIGHER OR PERMISSION OF THE DEPARTMENT CHAIR.

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
PREREQUISITE: PY 101. THIS COURSE IS A PREREQUISITE FOR ALL OTHER COUNSELING COURSES—PY 380, PY 382, PY 384, PY 420, PY 430, PY 440, AND PY/SW 488

PY 286I (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
PREREQUISITE: SKW 101

PY 290 Elementary Statistics and Lab

An introduction to the calculation and interpretation of statistics for the behavioral sciences including measures of central tendency, variability, correlation, and such inferential techniques as the t-test, analysis of variance, and regression. The lab component of this course entails using statistical software to conduct statistical analyses. 4 credits

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 CO-REQUISITE: PY 290.

PY 320 Qualitative Research Methods

An introduction to the theory and application of qualitative research methods commonly used in psychology and related social science fields. Students will explore the nature of qualitative research, the existing theoretical grounding for qualitative research, learn a foundational phenomenological method and approach for collecting qualitative data, and analysis of qualitative results. Students are expected to apply these skills in class as they engage in the qualitative analysis process.

3 credits

PRE-REQUISITE: PY 101; PRE- OR CO-REQUISITE: SSC 321

PY 325 Experimental Psychology

Experimental Psychology is a hands-on upper-level research course. Students will develop skills in applying each step of the scientific method, with particular attention to the experimental method. A primary focus of the course will be for the student to plan and complete a research project that contributes new knowledge to the field. 4 credits

PREREQUISITES: PY 290 AND SSC 321 with a minimum grade of B

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; stereotyping, sex roles; and public opinion. 3 credits

PREREQUISITE: PY 101 WITH A GRADE OF C- OR HIGHER OR PERMISSION OF THE DEPARTMENT CHAIR.

PY 352 (SW 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

PREREQUISITE: PY 101

PY 355 Designing Your Life III: Vocation & Avocation

This course emphasizes a framework for approaching career and life from a design perspective taking into consideration such issues as living one's vocation as well as avocation. Finding and experiencing meaning-making in work and life; the importance of happiness; and the significance of understanding and implementing Flow theory will be discussed. In addition, key considerations regarding graduate school, future specialized training, and employment in the field of psychology and counseling are emphasized. 1 credit

PREREQUISITE: PY 101

PY 380 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 Bowenian Family Systems Theory. The emphasis is on looking at both functional and 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 are discussed as these relate to and influence the individual development of each family

member. 3 credits

PREREQUISITE: PY 285 WITH A GRADE OF C- OR HIGHER.

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 WITH A GRADE OF C- OR HIGHER.

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. Emphasis is 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 WITH A GRADE OF C- OR HIGHER.

PY 404 (SW 404) Grief and Loss Across the Lifespan

A consideration of the current state of social science knowledge of the grief and loss, death and dying experience of individuals and families throughout the lifespan. Students explore the individual and family dynamics of death, loss, grief and bereavement. Death rituals and practices of various belief systems are discussed as well as the belief systems and cultural practices of students. Skills and techniques and techniques for coping and healing are also reviewed. 3 credits

PREREQUISITE: PY 101 or PY 122

PY 410 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 104 OR PY 285

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 438 (SW 438) Introduction to Substance Abuse Counseling

This course reviews key concepts to substance abuse counseling, including theoretical models for understanding and treating chemically dependent clients. Various screening and assessment tools, drug history, and interviewing skills will be reviewed to help students assess the severity of addiction and develop an initial treatment plan. Treatment settings and interventions commonly used with chemically dependent clients will also be reviewed. The purpose of this course is to provide students the introductory knowledge and techniques necessary to provide basic competent counseling and psychological services to substance abusers. Attention is paid to the interplay of conceptual knowledge and specific clinical skills and interventions, and the process of familiarization and personal

introspection necessary to work comfortably with substance abusers. Additionally, students will be able to make appropriate diagnosis of substance-related disorders, and to make appropriate referrals for treatment.

PREREQUISITE: PY 101

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

PREREQUISITES: PY 122 or EC 205 and EC 206/PY 216

PY 441 Parenting

This course will investigate parenting from both a nurturing and maltreatment perspective. Areas that will be explored are the dynamics of the parent/child relationships; social issues and concerns that impact parenting; how parent/child relationships evolve developmentally (birth through adolescence); various parenting styles and implications; the neuroscience of human relationships. This course will also offer Nurturing Parenting Program Facilitator Training certification. 3 credits

PREREQUISITES: PY 101 and PY 122 or EC 205 and EC 206/PY 216

PY 442 Children's Play

This course provides a basic understanding of the dynamics of children's play using a framework of social and emotional development. Students will also gain an understanding of basic play communication skills, which will allow them to connect with children and demonstrate empathy through the process of play. 3 credits

PREREQUISITES: PY 122 OR PY 205

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 455 Knowledge of Psychology

This online course covers key content across the subfields of psychology in order to complete psychology majors' understanding of the field of psychology as well as prepare them for upcoming assessments such as the psychology GRE. 1 credit

PREREQUISITES: PY 101 and PY 255; PRE- or CO-REQUISITES PY 122, PY 203, PY 230 or PY 230I, PY 280, PY 290, PY 340, PY 355, SSC 321

PY 488 (SW 488) Intimate Partner Violence Seminar

An overview of the knowledge and skills needed to understand the various forms of abuse, violence and harm perpetrated by a current or former intimate partner including, married, same-sex, or unmarried couples, or ex-partners. Particularly examines the research and literature on intimate partner violence to develop competencies in prevention, intervention and resources, and the implications for programs and policies to assist the victim and the abuser. 3 credits

PREREQUISITE: PY 285 or SW 302

PY 490 Senior Thesis I

The purpose of the senior thesis is to allow our upper-level psychology majors the opportunity to further develop their 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. PY 490 Senior Thesis I is the first of a two-semester sequence for the senior thesis. By the end of PY 490, students should have completed a literature review, designed the study, and obtained IRB approval (if applicable). To enroll in PY 490, the student must first submit a thesis proposal form (available from the program director) and receive approval. Student enrolling in PY-490 must commit to enrolling in PY-491 in the following semester to complete the project. 1.5 credits

PREREQUISITE: SSC 321 with a minimum grade of A- and permission from the program director

PY 491 Senior Thesis II

The purpose of the senior thesis is to allow our upper-level psychology majors the opportunity to further develop their 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. PY 491 Senior Thesis II is a continuation of PY 490 Senior Thesis I. By the end of PY 491, students should have collected the data, conducted statistical analyses on the data (if applicable), and written an APA-style thesis paper. 1.5 credits
PREREQUISITE: PY 490

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 into 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 Curriculum and Methods in Secondary Education

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 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

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. 12 credits

SOCIAL WORK

SW 104 (SO 104) 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. A central theme of the course is the exploration of topics concerned with multi-cultural issues, diversity, and inclusion. 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. 3 credits

SW 201 (SO 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 lifelong 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

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

SW 216 (SO 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

SW 218 (PY 218, SO 218) Forensic Treatment and Correction

An exploration of interdisciplinary practices within the correctional environment that present serious challenges to healthcare 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

PREREQUISITE: PY 101

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

SW 270 (PY 270, SO 270) Cultural Humility in Social Work

This course provides an introduction to anti-racism, diversity, equity and inclusion (ADEI) in practice for social workers and other professionals. Students will gain knowledge about the pervasive impact of white supremacy and privilege in society and how to use knowledge, awareness and skills to engage in anti-racist and anti-oppressive practice. This requires practicing cultural humility, which involves being self-reflective as well as learning about how different identities intersect to shape one's life as well as those of others. Empowerment and a recognition that clients and communities are experts of their own lives is the foundation of this approach. 3 credits

SW 279 Special Topics

Provides an opportunity to present specially designed courses in individual and distinctive topic areas. 1-3 credits

SW 280 Immigration in the United States

Social Workers and professionals in a range of fields will work with immigrants and need to be prepared to bring both knowledge and cultural humility to their work. In this course, students will learn about immigration within the context of the United States and the local community. They will learn about refugees and immigrants using an intersectional approach by listening and reading about the lived experiences of these populations. Students will also explore the political and legal atmosphere for immigrants today. Finally, students will learn concrete skills for working with refugees and immigrants in the context of helping professions. 3 credits

SW 298 Social Work Pathways and Healthcare

This course examines health and social work, social work practice in a variety of settings, and the understanding of health care issues specific to special populations. An intersectionality lens is used to promote a greater understanding of an individual's multiple status of identity including race, ethnicity, nationality, class, education, religion, gender, sexuality, and the values and ethical issues in a health care environment. The course underscores the importance of understanding access, ethics, equality, empowerment, prevention, outcomes, and quality of life. 3 credits

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

SW 303 Social Welfare Policy and Analysis

The historical, economic, social, and political facets of policies are examined from the social work practitioner's 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

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 302. Discussion and simulation of assessment, intervention, and practice with families are emphasized. (Mezzo practice course). 3 credits

PREREQUISITES: SW 302

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 are emphasized. 3 credits

PREREQUISITES: SW 302

SW 309 Social Work Practice in Healthcare

This course is designed to develop the knowledge, skills, and values necessary for effective health care social work practice with patients and families. Advocating for and ensuring patients and families have access to the necessary resources, as well as addressing emotional and psychosocial needs are emphasized. The technological, social, political, ethical, and financial factors affecting patient care are explored. Case studies and exercises emphasize the importance of practicing social workers attentiveness to both patient and organizational needs. Emerging trends in health care policy and delivery are addressed as well as social work practice across the continuum of care. 3 credits

PREREQUISITE: SW 104 and SW 302

SW 310SL (CM 310SL) Youth Media Advocacy Project (YMAP)

The Youth Media Advocacy project provides high school students with the knowledge, skills, and support to utilize 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

SW 350I (CM 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: SKW 101, SKC 101

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

SW 352 (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
PREREQUISITE: PY 101

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 WITH A GRADE OF C- OR HIGHER

SW 399 Professional Ethical Leadership in Social Work

This course focuses on student development of values, skills, and knowledge as professional, ethical leaders in Social Work in preparation for field placement. Students will enhance skills in oral and written communication, time management, leadership, boundaries, networking, working with diverse populations, interviewing, negotiation, and articulation of professional values. They will explore ethics relevant to practice with a focus on engaging with diversity and advancing human rights and social, economic and environmental justice as professionals. Students will also learn about local organizations and agencies that exemplify Social Work's social justice mission as they prepare to enter field placement internship. 3 credits
Requires Verification of Eligibility through BSW Academic Advisor

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
COREQUISITE: SW 405.

SW 404 (PY 404) Grief and Loss Across the Lifespan

A consideration of the current state of social science knowledge of the grief and loss, death and dying experience of individuals and families throughout the lifespan. Students explore the individual and family dynamics of death, loss, grief and bereavement. Death rituals and practices of various belief systems are discussed as well as the belief systems and cultural practices of students. Skills and techniques and techniques for coping and healing are also reviewed. 3 credits
PREREQUISITE: PY 101 or PY 122

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. 3 credits
PREREQUISITES: SW 402, SW 405. COREQUISITE: SW 406.

SW 415 (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 the discussion. It also looks at the impact of the work environment on the well-being of women. 3 credits

SW 420 (PY 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 traumas 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 104 OR PY 285.

SW 421 Research Methods I

This course aims to familiarize students with the most common research methods used in social and behavioral sciences, with an emphasis on critical thinking and becoming informed consumers of research. This course is designed to provide students in the social sciences with an opportunity to construct and present a proposal for an original research project. Throughout the course students will study quantitative, qualitative, and experimental research methods common to the various social sciences. Students will have opportunities, throughout the course, to employ these various research methods through in-class and homework assignments. By participating in this course, students will become familiar with basic research methods to advance their understanding of their discipline and of social sciences. Students will learn how to critically evaluate research methods and research claims to become more informed consumers and producers of social science research. It is not expected that upon completion of the course that you will have acquired all the skills necessary to design and conduct your own research. Becoming a competent researcher requires in-depth course work in various aspects of research methodology as well as considerable "hands-on" experience. 3 credits

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
PREREQUISITES: PY 122 or EC 205 and EC 206/PY 216

SW 488 (PY 488) Intimate Partner Violence Seminar

An overview of the knowledge and skills needed to understand the various forms of abuse, violence and harm perpetrated by a current or former intimate partner including, married, same-sex, or unmarried couples, or ex-partners. Particularly examines the research and literature on intimate partner violence to develop competencies in prevention, intervention and resources, and the implications for programs and policies to assist the victim and the abuser. 3 credits
PREREQUISITE: PY 285

SOCIOLOGY

SO 104 (SW 104) 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. A central theme of the course is the exploration of topics concerned with multi-cultural issues, diversity, and inclusion. 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. 3 credits

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

SO 187 (CRM 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 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 lifecycle 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

SO 216 (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

SO 218 (PY 218, SW 218) Forensic Treatment and Correction

An exploration of interdisciplinary practices within the correctional environment that present serious challenges to healthcare 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
PREREQUISITE: PY 101

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 United States 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
PREREQUISITES: POL 101 OR SO 152 AND SKW 101

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

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 SKW 101

SO 270 (PY 270, SW 270) Cultural Humility in Social Work

This course provides an introduction to anti-racism, diversity, equity and inclusion (ADEI) in practice for social workers and other professionals. Students will gain knowledge about the pervasive impact of white supremacy and privilege in society and how to use knowledge, awareness and skills to engage in anti-racist and anti-oppressive practice. This requires practicing cultural humility, which involves being self-reflective as well as learning about how different identities intersect to shape one's life as well as those of others. Empowerment and a recognition that clients and communities are experts of their own lives is the foundation of this approach. 3 credits

SO 285 (CRM 285) Violence & 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
PREREQUISITE: SO 152 OR SW 104/104SL.

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 303 (CRM 303) Prisons and Society

This course examines the history, structure, and functions of corrections, and the legal and philosophical basis for the punishment of criminal offenders, including the role of corrections as one of the three major components of the criminal justice system. The course will also discuss repercussions of the current status of the correctional system and its relationship with society. 3 credits

SO 305 Contemporary Sociological Theory

This course is an overview of contemporary sociological theory in the conflict, functionalist, and micro-interactionist 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 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

SO 315 (CRM 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 316I 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 317I (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

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 United States 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 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

SSC COURSES

SSC 200 (POL 200) 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 exploration of globalization and the role of the media in this process. 3 credits

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: SKC 101, SKW 101, SKQ 101.

SSC 390 Leadership and Social Change Capstone

As the capstone experience for all students completing the minor in Leadership and Social Change, this course is designed to encourage reflection on concepts and skills in this interdisciplinary minor. The course also provides students with the opportunity to demonstrate learning by completing a community-based project and delivering a written and oral final presentation. This course satisfies the Ethics and Social Responsibility (ESR) requirement for Compass. 3 credits

PREREQUISITES: SSC 120 AND 200 (C- or better) or Junior status

SPECIAL EDUCATION

SPED 230/230SL 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. Finally, 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 holistically to develop 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 230SL.

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 230SL.

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 the 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, necessary for success in today's classrooms. 3 credits
PREREQUISITE: SPED 230SL.

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 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 230SL.

SPED 451 Assessment in Special Education

This course is designed to familiarize teacher candidates with the many ways in which assessment accompanies instruction in today's classrooms. A strong emphasis is placed on linking assessment with planning for instruction and on 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 for identification of disabilities in students. Emphasis is placed on developing the understanding necessary to interpret assessment data, using 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 230SL, 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 230SL, 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 230SL, 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 230SL, 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, equipping them with strategies to 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 when dealing with problem behaviors in a positive and proactive manner. 3 credits
PREREQUISITES: SPED 230SL, 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 for dealing with problem behaviors in a positive and proactive manner. 3 credits
PREREQUISITES: SPED 230SL, 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 230SL, 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 230SL, 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 eight-week experience with children and youth who have a range of disabilities. 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

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

TH 143 The Church as a Developing Community

A consideration of biblical, historical, and theological questions about the Church. 3 credits

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

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

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 for those who suffer inequalities, and the challenge to address social structures that threaten the dignity of communities. 3 credits

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 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

TH 206 Dating, Marriage, and Family

This course explores the human values involved in dating, marriage, and family relationships, primarily from a Christian theological perspective. A key question will be the role of the ideal. Christianity, like all religions and ways of life, holds up certain ideals of what dating, marriage, and family should be. What are the sources of those ideals? What happens when actual experiences of dating, marriage, and family diverge from those ideals? 3 credits

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

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

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 233 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

TH 234 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

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

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

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

TH 265 Theological Biomedical Ethics

This course offers a theological basis for health care and health care ethics. It speaks to theological anthropology and introduces the student to a primarily Christian (Catholic and Protestant) approach to the meaning of human life as that applies specifically to health care. The course will also cover a brief history of the relationship between religion and medicine and makes claims about how theology

ought and ought not to be applied to health care ethics. In addition to Christian biomedical ethics the course will also explore both Jewish and Muslim health care ethics. 3 credits

TH 310 Special Topics

A course focused on a particular theological topic that varies from semester to semester. 3 credits

TH 311 Morality, Law, and Sin

The course will draw on theology, political philosophy, and history to explore religious ideas' historical and ongoing impact on legal structures. A Christian perspective, including Catholic Social Teaching, will be central to our examination, though other religious perspectives will be addressed briefly. Our theoretical exploration will be combined with discussions of specific contemporary issues (gun rights/control, sexual crimes, incarceration systems, etc.). 3 credits

TH 330 Prophets of the Old Testament

A study of the major and minor prophetic books of the Old Testament with emphasis on their theological and ethical teachings. 3 credits

TH 350 (CHM 350) Miracles: Science and God

How does God "work" in the world and how is that work perceived in light of the "laws of nature." Studies in the fields of theoretical physics and quantum mechanics suggest exciting possibilities for a 21st-century theology of divine action. In particular, this course will investigate the relationship between what Thomas Aquinas referred to as "primary cause" (the origin of all things) and "secondary causes" (all the interactions we perceive in the empirical world). 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 360 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

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

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. 1 to 3 credits

TR 115 (MU 115) Musical Theatre

This course examines the various influences that led to the creation and evolution of American musical theatre. We will study its' relevance on cultural and social history through audio, video, readings, and discussions. The textbook, *Musical Theatre: A History* (Second Edition) by John Kenrick, will serve as the main reference, while the PBS video series, *Broadway: The American Musical*, will provide added insight and multimedia from important moments and productions. 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

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 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

TR 280I (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

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

TR 325I (PH 325I) Philosophy, Humor, and Comedy

Interdisciplinary class designed for philosophy or theatre minors. The class is an overview of Western comedy and humor from the perspective of the history of Western philosophy. 3 credits

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

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

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

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

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

WS 219 (HS 219) Boy Cultures

The course is designed to invite male and female students who have a scholarly and/or personal interest in both understanding the complexity of the subject and considering implications for positive changes in areas where males struggle. The class explores constructs of masculinity in the U.S. using an intersectional approach, which assumes that there are multiple masculinities that intersect with race, class, ableism, sexuality, and gender identity. Masculinity is a powerful vehicle that motivates the behavior of boys and men, and if it is redefined and constructed as responsibility for others (and not domination) the impacts can be tremendous. 3 credits

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

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

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
PREREQUISITES: SKW 101, SKC 101, AND SKQ 101.

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

WS 235SL Girls in American Society

This course examines the social experience of girls in American society. There is a particular focus on the socially constructed meanings of girlhood, the social and economic disadvantages faced by girls, and the role of feminist practice in countering those disadvantages. It offers an opportunity to develop knowledge through feminist research and theory and consider what it means to practice feminism in the public sphere. The topics of focus are meant to enrich the experience of undergraduate women currently mentoring pre-adolescent girls as part of the Strong Women Strong Girls program. 3 credits

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

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

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 262 (EN 262) Women's Writing on Illness and Healing

Women's Writing on Illness and Healing is an interdisciplinary course about women writers whose works explore mental health, physical health, and healing from a social justice perspective. Students read a range of literary genres on topics such as mental health/illness, healthcare workers, family and disability, facing mortality, and healing, hope, and grace. The course uses both literary analysis and Women's and Gender Studies approaches. 3 credits

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

WS 300/300I (EN 300/300I) Environmental Justice

This cross disciplinary examination of environmental justice issues explores works by various authors and contemporary films. The cross disciplinary approach of the literary materials and women's studies perspectives is integrated into students' readings, research, and collaborative in-class projects. 3 credits

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

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. Gender-specific concerns and obstacles confronted by women interested in political participation and leadership will be covered. 3 credits

WS 320 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

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

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

WS 355 (PH 355) Feminist Philosophy

A study of philosophies of women and women's philosophies such as those of Woolf, de Beauvoir, 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 380I (HS 380I) Special Topics in Women's History

Topics vary. 1 to 4 credits 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

WS 485 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. 1 credit

COLLEGE OF HEALTH AND WELLNESS

SCHOOL OF NURSING

UNDERGRADUATE NURSING

MAJORS

- Nursing

PROGRAMS AND CERTIFICATES

- BSN Program
- RN-BSN Program
- BSN Second Degree Program
- BSN Step Ahead Program
- Practical Nurse Certificate Program

MINORS

- Health Coach

ACCELERATED PROGRAM

- RN-BSN to MSN Accelerated Option Program

NURSING POLICIES

Nursing policies are explained fully in the School of Nursing Undergraduate Student Handbooks. Refer to it for specific, complete information. The School of Nursing 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:

- 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. The student is allotted 3 semesters to earn a GPA of 3.0 or better. 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.
- Statute of Limitations: Students must successfully complete all requirements for the baccalaureate degree in nursing (BSN) within a period of eight academic years, beginning at the time of matriculation or six years from the time of the taking the initial clinical course in the traditional program. Students in the 2nd Degree BSN program have three years to complete the program. Students in the RN/BSN program have five years, excluding an approved leave of absence, from the time of initial matriculation to complete the program.
- In compliance with the State Board of Nursing regulations and policies of clinical agencies, students are required to pass a physical exam yearly. Students 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:

- Integrate theories and concepts of human experience from the humanities and social/natural sciences into professional practice.
- Transition into the professional nursing role: demonstrating critical reasoning, providing respectful, compassionate care, valuing lifelong learning, and practicing within professional, legal, and ethical frameworks.
- Demonstrate leadership and interprofessional collaborative communication to achieve patient safety, quality improvement and patient advocacy in healthcare delivery systems.
- Integrate evidence; clinical experience; interprofessional perspectives; and patient-centered (or individual, family, and community) preferences into the plan of care.
- Implement information technology knowledge, skills, and attitude in the delivery of patient-centered care in diverse settings.
- Apply basic knowledge of the impact of political, financial, and regulatory systems on the rapidly changing healthcare environment.
- Demonstrate effective written and verbal communication skills for respectful interprofessional collaboration.
- Collaborate with individuals, the interprofessional team, and the community to promote positive health outcomes and decrease health disparities.
- 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. The program serves as a basis for graduate study, and a foundation for lifelong 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 healthcare settings. 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. In addition to courses within the major, students are required to complete support courses and university Compass 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. Students must maintain a 3.0 cumulative grade point average to progress in the program. Please refer to the nursing handbook for specific academic program policies.

Support courses required for Nursing:

Natural Sciences: BIO 207, BIO 208, BIO 227, BIO 307, BIO 308, and CHM 105.

Social and Behavioral Sciences: PY 122; SO 152; MAT 115

Major Requirements: NU 102, NU 106, NU 110, NU2161/2162, NU 2171/2172, NU 223, NU 224, NU 320, 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, NU 415, NU 4151 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 9 graduate 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 1170 on the SAT; or have cumulative GPA of 3.5 by the end of the first semester of the sophomore year at Carlow.
- Complete the skills courses (Writing, Speaking and Quantitative Reasoning) prior to starting graduate courses.
- Plan semester schedules to take 6-9 graduate credits in addition to the BSN and university core curriculum requirements in the nursing program.
- Maintain a cumulative GPA of 3.1 during the junior and senior years of the BSN program.

SECOND DEGREE BSN PROGRAM

Purpose

This program is designed for those who have earned a bachelor’s degree in another field of study. The full-time program is 15 months after the completion of the pre-requisite courses. There is also an option to enroll as a part-time student. The courses and clinical hours required for graduation are the same as those required for the traditional BSN program.

Second Degree BSN Requirements:

A Bachelors’ degree from an accredited college or university in a major other than nursing and a cumulative GPA of 2.85 with appropriate pre-requisite course work. Second Degree BSN students must maintain a cumulative GPA of 2.5 or better to progress in the program. A student who falls below a 2.5 GPA will be placed on probation in the next semester. A student may only be on probation two times throughout the program.

Second Degree BSN Pre-requisites:

Anatomy & Physiology I w/Lab (4 Credits), Anatomy & Physiology II w/Lab (4 Credits)

*Must be completed within the last eight years. Both courses must be taken at the same college or university.

Chemistry w/Lab (4 Credits), Life Span Development (3 credits), Microbiology w/ lab (4 credits), Nutrition (3 credits, taught by a Registered Dietitian), Pathophysiology (3-4 credits), Sociology (3 credits) and Basic Applied Statistics (3 credits)

* Must be completed within the last 10 years:

Major Requirements: NU 102, NU 106, NU 110, NU 2161/2162, NU 2171/2172, NU 223, NU 224, NU 320, 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, NU 415, NU 4151 and NU 463

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 nursing license as a Registered Nurse in the state or commonwealth of active current practice is required. Candidates who are graduates of nursing programs in the United States, must be a graduate of an accredited Diploma or associate degree Program (ADN) to include Accreditation Commission for Education in Nursing (ACEN), or Commission on Collegiate Nursing Education (CCNE). Must have an earned cumulative GPA of ≥ 2.0 . 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: SKW and SKC 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 SO 251; PH 100, PH 210, PH 301 or PH 367; or approved equivalent. MAT 115 or equivalent 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 MSN ACCELERATED OPTION PROGRAM

The accelerated program prepares academically qualified undergraduate Carlow nursing majors to take a fast-track approach toward their professional future that includes the opportunity to take graduate level courses while enrolled in undergraduate studies. Students who qualify for this program may earn up to 13 master's nursing credits by completion of their BSN degree at Carlow University. Refer to the School 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 Accelerated Option program plan of study, the student must achieve and maintain a minimum Carlow cumulative GPA of ≥ 3.0 and achieve $\geq B$ grade in the MSN accelerated option program courses. Accelerated program students have the opportunity to apply to one of the MSN programs: NCEL, NCEL/MBA Dual Degree, or Individual Across the Lifespan (FNP) or Women's Health Nurse Practitioner (WHNP) programs and must meet the MSN admission requirements including, but not limited to completion of an online graduate program application form; successfully graduate from the RN-BSN program with a cumulative grade point average of 3.0; maintain a current, active, valid, unrestricted license as a Registered Nurse in the state in which clinical or internship practice will be completed (Pennsylvania RN license required if clinical or internship practice will be completed in Pennsylvania); meet both University and clinical agency health requirements; successful completion of an undergraduate course in Statistics with a grade of $\geq C$; submission of a current curriculum vitae or resume; provide two (2) professional reference forms; submit a single page 300-400-word essay scholarly writing sample that includes: *discussion of the relevance of evidence based practice to graduate level education, *philosophy of nursing statement, *goals for taking the particular program of study, and *how completion of the degree will enable the applicant to further contribute to the profession. An interview with a member of the Graduate Nursing Admissions Subcommittee may be required. For admissions into the FNP and WHNP programs, must have the equivalent of one year full-time direct patient care nursing experience, submission of a professional reference forms that must relate to the current clinical experiences of the applicant (faculty, supervisor); and submission of a deposit (per Admission letter). Please see the Department of Nursing RN-BSN and Graduate Student Handbooks for a complete list of admission requirements.

Have a current, active, valid, unrestricted license as a Registered Nurse in the state or commonwealth of active current practice is required. 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 Compass requirements.

Prerequisites: Undergraduate nursing and support courses and Carlow Compass courses must be completed before beginning "accelerated" MSN courses. Successful completion of NU 412, NU 413 and NU 430.

RN-BSN to MSN Accelerated Option 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 Option Program may take designated MSN core courses to fulfill the minimum 120-credit requirement for the BSN degree. The graduate core courses must begin with NU 743, NU 738 and NU 740. Additional core courses in the accelerated option program include NU 710 and NU 748.

NU 412, NU 413, NU 430, NU 435, NU 440 and NU 450; NU 738, NU 740, and NU 743 (additional MSN optional course electives include NU 710 and NU 748).

In order to begin the accelerated MSN courses students must:

- Must successfully complete the university compass program requirements and nursing program support courses.
- Must complete a minimum of one semester at Carlow as an RN-BSN student.
- Must successfully complete NU 412, NU 413 & NU 430 prior to beginning MSN core courses.
- Must have written approval from the student's Nursing Faculty Advisor.
- Have a current, valid, unrestricted license as a Registered Nurse in the state or commonwealth of active current practice is required. Clinical coursework must be completed in the Commonwealth or state of current 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 the MSN accelerated option) 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., MAT 115 or equivalent) is required for admission to the MSN programs.

PRACTICAL NURSE CERTIFICATE PROGRAM

NURSING POLICIES

Nursing policies are explained fully in the School of Nursing Practical Nurse Certificate Program Student Handbook. Refer to it for specific, complete information. The School of Nursing 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:

- Students must earn a minimum grade of C (2.0) in each of the prerequisite and corequisite support courses within the time frame designated in the curriculum guide.
- PN students must earn a cumulative test average grade of 75.00% to successfully complete all nursing courses.
- PN students must attain a minimum GPA of 2.5 prior to enrolling in the first clinical nursing course. Students must maintain a cumulative GPA of 2.5 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 2.5 GPA will be placed on probation in the next semester; failing to return to a cumulative 2.5 GPA by the end of the probation semester will halt progression into nursing courses until the cumulative GPA returns to 2.5 or higher. The student is allotted 2 semesters to earn a GPA of 2.5 or better. A student may only be on probation two times throughout the entire 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.
- Statute of Limitations: Students must successfully complete all requirements for the Practical Nurse Certificate Program within a period of three academic years, from the time of initial matriculation.
- In compliance with the State Board of Nursing regulations and policies of clinical agencies, students are required to pass a physical exam yearly. Students must maintain professional liability insurance, immunizations, CPR certification, background

checks, fingerprints and other requirements as described in the School of Nursing Practical Nurse Certificate Program Student handbook. The School of Nursing reserves the right to make changes in policies and/or the curriculum outline.

PROGRAM STUDENT LEARNER OUTCOMES

Throughout the certificate 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 life-long learning.

The PN graduate is expected to:

- Provide competent holistic care to patients by applying relevant knowledge and skills needed to meet the needs of the patient.
- Apply the nursing process in the delivery of quality patient care.
- Demonstrate the ability to communicate effectively during patient and family interactions and with colleagues and healthcare team members in various clinical practice settings.
- Integrate information technology skills in the plan of care that supports diverse communities and populations.
- Transition to the practical nursing role maintaining the scope and standards of practice to become a compassionate and competent care provider.

*The program outcomes are based upon: The Sisters of Mercy Core Values (Carlow University Mission Statement, 2009), Accreditation Commission for Education in Nursing (ACEN) and the QSEN Pre-licensure Competencies (2012).

The program leads to a Certificate in Practical Nursing (PN) that is approved by the Pennsylvania State Board of Nursing. The PN Program plans to seek accreditation from the Accreditation Commission for Education in Nursing (ACEN).

The PN Program

The Practical Nursing Certificate Program (PNCP) is a 44-credit program that creates a unique opportunity for students to complete a certificate program leading to licensure as a practical nurse (LPN). A licensed practice nurse is an entry-level nurse who provides direct patient care under the direction of a registered nurse or physician. The role of the LPN is integral to nursing, healthcare practice, and community that focuses on the care of populations in community settings that include long-term care, home care, physician office settings, and medical rehabilitation centers. This program will provide experiential learning, clinical and technical skill development that prepares students for future careers in healthcare. Graduates who complete a state approved PN program are eligible to take the national examination for licensure for practical nursing, which provides immediate employment opportunities. Program graduate students may also consider a seamless transition to a Bachelor of Science Degree in Nursing (BSN).

Purpose

The purpose of the PN 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 students to practice as an entry-level technical nurse and function as a vital member of the healthcare team to deliver competent, compassionate quality patient care.

PN Program Requirements:

A PN Certificate requires 44 credits for graduation. Students enroll in the first nursing course during the first semester while concurrently enrolled in the required support courses. Students must maintain a 2.5 cumulative grade point average to progress in the program. Please refer to the PN School of Nursing Handbook for specific academic program policies.

Support courses required for Nursing:

Natural Sciences: BIO 207, BIO 217

Foundational: SKW 101, HIM 102

Social and Behavioral Sciences: PSY 101

Program Requirements: PNU-100, PNU-101, PNU-110, PNU-111, PNU-150, PNU-151, PNU-250, PNU-251, PNU-252

PN courses begin in the first 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 second year courses.

DECIDING HEALTHCARE AND PRE-NURSING

Students who upon admission do not immediately qualify for Nursing may be placed in Pre-Nursing to the discretion of Admissions and the academic department. Pre-Nursing students take BIO-157, CHM-105, PY-122, and SO-152 along with Compass requirements. Pre-Nursing students have three semesters to qualify for the Nursing program. If they do not qualify in three semesters, they must change their majors. A registration hold will be placed on a student who has not qualified by the time limit and has not changed their major ahead of registration. The Office of Career Development is a resource for any student who needs guidance on a new academic pathway. Deciding Healthcare is designed for students interested in the healthcare field. The courses taken by Deciding Healthcare students depend on the field in which they are interested. It may include natural and social science courses, health-related coursework, and Compass requirements. Students have until Junior class level standing (54 credits) to declare a major. A registration hold will be placed on a student who has not qualified by the time limit and has not changed their major ahead of registration.

HEALTH COACH MINOR

The Health Coach minor has an interdisciplinary focus that offers preparation for roles related to health promotion. It is open to any major and designed for students who seek to work with patients or in a health care setting but not necessarily in direct patient care. Drawing from many disciplines, the minor explores concepts, theories, practices 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 in health care delivery.

The minor consists of 19 credits and would require the following 4 interdisciplinary courses.

- PH 210: Biomedical Ethics
- CM 370: Communication and Health Care or CM 232: Organizational Communications
- NU 110: Wellness across the Adult Lifespan (Note: This NU class is open to non-NU students in the minor)
- NU 300: Health Coach
- And 2 courses from the following list (at least one of the two courses must be at 300 level or higher).
 - BIO 205 Anatomy and Physiology
 - CM 232 Organizational Communications
 - SW 226SL Networking in the Community
 - PY 285 Introduction to Counseling
 - SW 302 Introduction to Case Management
 - PY/SW 430 Crisis Intervention
 - NU 451 Intro to Epidemiology
 - BSM 204 Management in Health Services
 - RC/POL 327 Respiratory Care Education

DEPARTMENT OF PUBLIC HEALTH

MAJORS

- Respiratory Therapy (Bachelor of Science)
- Respiratory Therapy Degree Completion Program
- Respiratory Therapy (Associate of Science)
- Surgical Technology (Associate of Science)

RESPIRATORY THERAPY MAJOR

Respiratory Therapy 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 Therapy program provides a unique, specialized, academic, and technical education that will prepare students to

be an integral member of an exclusive healthcare team responsible for performing essential Respiratory Therapy functions. The program runs Fall-Spring-Summer for three years. Students typically must take 15-17 credits every fall and spring term, as well as 9 credits in the summer, to complete 120 credits in three years. 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 Therapy and will be eligible to participate in the National Board for Respiratory Care Examinations.

LEARNING OUTCOMES

- The student will demonstrate proficient knowledge and application of mechanical ventilation and therapeutic adjustments.
- The student will practice respiratory therapy according to established professional and ethical standards.
- The student will be able to develop, evaluate, modify, and execute respiratory therapy treatments.
- 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 therapy.
- The student will administer therapeutic medical gases.
- The student will be able to proficiently interpret and analyze respiratory information and data.
- The student will demonstrate proficiency in analysis and comprehension of literature regarding evidence-based practices through the application of concepts within the professional setting.
- The student will demonstrate mastery of education principles.

ACCREDITATION

The Bachelor of Science in Respiratory Care program, CoARC program number 200617, BS degree, Pittsburgh, PA, is accredited by the Commission on Accreditation for Respiratory Care (CoARC).

Commission on Accreditation for Respiratory Care
264 Precision Blvd. Telford, TN 37690
Phone: 817-283-2835
Email: www.coarc.com

RESPIRATORY THERAPY PROGRAM POLICIES

Respiratory Therapy policies are explained fully in the Respiratory Therapy Program Student Handbook. Refer to it for specific, complete information. The Respiratory Therapy program 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 Therapy students must earn a final cumulative grade of C or higher (C- is considered unsuccessful) to successfully complete all Respiratory Therapy (RC) courses.
- Should any student receive a grade below a C (such as a C-) in two or more respiratory therapy program courses they will be dismissed from the program.
- 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 Therapy students will be required to complete clinical rotations, which will require students to travel to the clinical sites.
- The respiratory program does not offer advanced placement for any RC courses contained in its curriculum (RC level).
- All Respiratory Therapy students are required to pass a physical exam, background checks, fingerprints, and drug screens, as well as maintain professional liability insurance, immunizations, CPR certification, and other requirements as described in the Respiratory Therapy Program Student Handbook. The Respiratory Therapy program reserves the right to make changes in policies and/or the curriculum outline. For the student to be eligible for graduation from the Respiratory Therapy program they must complete all the following:
 - Successful completion of all Respiratory Therapy didactic, laboratory, and clinical courses in the program curriculum with a minimum grade of C or higher. (Grades 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 Therapy competencies contained in the student handbook.
 - The student must attain a cumulative academic average of 2.0 GPA.
 - Students must officially apply to graduate and must complete the 120 credits reflected in the program curriculum.
 - All students must complete and receive verification by the Office of the Registrar of their fulfillment of all course requirements

Requirements: RC100, RC127, RC200, RC201, RC221, RC240, RC250, RC251, RC277, RC280, RC305, RC3100, RC3200, RC317, RC327, RC355, RC356, RC380, RC4100, RC4200, RC440, RC490

Support Courses: BIO157 (OR BIO110), BIO207 (OR BIO 201 OR 205), BIO208 (OR BIO 202 OR 206), CHM105 (OR CHM111 and 113), PY122

RESPIRATORY THERAPY DEGREE COMPLETION PROGRAM

PROGRAM OVERVIEW

The Bachelor of Science in Respiratory Therapy Degree Completion program is designed for working Respiratory Therapists who desire to advance their education and obtain a Bachelor of Science degree. The courses within this program are delivered through 100% online instruction by experts in the fields of academia and Respiratory Therapy. The curriculum is designed to build upon the skills of credentialed practitioners who wish to broaden their education to prepare for management/leadership positions and advanced respiratory practice. Students will explore a comprehensive specialized curriculum targeted to enhance knowledge in numerous areas such as Evidence Based Practice, Enhanced Theories in Respiratory Therapy, and Leadership/Management Strategies in Respiratory Therapy.

LEARNING OUTCOMES

The student will be able to:

- Produce a strategic plan for an effective, operational respiratory therapy department.
- Explain and identify innovative professional management strategies.
- Acquire leadership strategies for utilization in respiratory therapy.
- Display patient safety and quality improvement concepts in respiratory therapy.
- Evaluate medical research critically.
- List and describe the major pathophysiological functions of the human body.
- Describe the major ethical issues one must consider when working in a medical environment.
- Determine and apply the appropriate statistical procedures utilized in medical research.
- Define, describe, categorize, and differentiate respiratory pharmacology.
- Apply principles of evidence-based medicine to determine clinical diagnoses and formulate and implement acceptable treatment modalities.

RESPIRATORY THERAPY PROGRAM POLICIES

The Respiratory Therapy program reserves the right to make policy changes to address ongoing professional educational requirements/changes.

The following are selected summaries for the Respiratory Therapy Degree Completion Program:

- All courses are delivered in a 100% online format.
- Requires a minimum of 120 credits including 10 Respiratory Therapy courses and Carlow Compass courses not satisfied by transfer.
- Each student will have their transcript individually evaluated to determine the number of credits successfully transferred into Carlow University.
- Courses are delivered in an asynchronous format (no predetermined class time). This allows working RT's to complete course work at times convenient to them.
- Respiratory Therapy students must earn a final cumulative grade of C or higher (C- is considered unsuccessful) to successfully complete all Respiratory Therapy (RC) courses. Students may reattempt a course in an effort to obtain the minimum grade of C or higher.
- Should any student receive a grade below a C (such as a C-) in two or more respiratory therapy program courses they will be dismissed from the program.
- For enrollment consideration, potential candidates must contain an active CRT or RRT credential, graduated with an A.S. in Respiratory Therapy from a CoARC approved Respiratory Therapy program, and possess a minimum GPA of 2.0.
- The Respiratory Therapy program reserves the right to make changes in policies and/or the curriculum outline.
- The 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 complete the 120 credits reflected in the program curriculum plan.
- All students must successfully complete and receive verification by the Office of the Registrar of their fulfillment of all course requirements.
- Condensed eight-week course format, which allows for accelerated degree completion.

Requirements: RC 117, RC 127, RC 207, RC 217, RC 227, RC 277, RC 307, RC 317, RC 327, and RC 407

RESPIRATORY THERAPY MAJOR (Associate of Science)

Respiratory Therapy 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 Therapy program provides a unique, specialized, academic, and technical education that will prepare students to be an integral member of an exclusive healthcare team responsible for performing essential Respiratory Therapy functions. The program runs Fall-Spring-Summer for two years. Students typically must take 12-16 credits each fall and spring term, as well as 6 credits in the summer, to complete 69 credits in two years. Students will master a variety of specialized skills and be trained to be active clinicians in areas of respiratory practice. Upon the successful completion of all graduation requirements, the student will be awarded an Associate of Science in Respiratory Therapy and will be eligible to participate in the National Board for Respiratory Care Examinations.

LEARNING OUTCOMES

- The student will demonstrate proficient knowledge and application of mechanical ventilation and therapeutic adjustments.
- The student will practice respiratory therapy according to established professional and ethical standards.
- The student will be able to develop, evaluate, modify, and execute respiratory therapy treatments.
- 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 therapy.
- The student will administer therapeutic medical gases.
- The student will be able to proficiently interpret and analyze respiratory information and data.

ACCREDITATION

The Associate of Science in Respiratory Care program, CoARC program number 210617, AS degree, Pittsburgh, PA, holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com). This status signifies that a program with an Approval of Intent has demonstrated sufficient compliance with the Standards (through submission of an acceptable Provisional Accreditation Self Study Report (PSSR) and any other documentation required by the CoARC, as well as satisfactory completion of an initial site visit), to be allowed to admit students. It is recognized as an accredited program by the National Board for Respiratory Care (NBRC), which provides enrolled students who complete the program with eligibility for the Respiratory Care Credentialing Examination(s). The program will remain on Provisional Accreditation until it achieves Continuing Accreditation.

Commission on Accreditation for Respiratory Care
264 Precision Blvd. Telford, TN 37690
Phone: 817-283-2835
Email: www.coarc.com

RESPIRATORY THERAPY PROGRAM POLICIES

Respiratory Therapy policies are explained fully in the Respiratory Therapy Program Student Handbook. Refer to it for specific, complete information. The Respiratory Therapy program 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 Therapy students must earn a final cumulative grade of C or higher (C- is considered unsuccessful) to successfully complete all Respiratory Therapy (RC) courses.
- Should any student receive a grade below a C (such as a C-) in two or more respiratory therapy program courses they will be

dismissed from the program.

- 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 Therapy students will be required to complete clinical rotations, which will require students to travel to the clinical sites.
- The respiratory program does not offer advanced placement for any RC courses contained in its curriculum (RC level).
- All Respiratory Therapy students are required to pass a physical exam, background checks, fingerprints, and drug screens, as well as maintain professional liability insurance, immunizations, CPR certification, and other requirements as described in the Respiratory Therapy Program Student Handbook. The Respiratory Therapy program reserves the right to make changes in policies and/or the curriculum outline. For the student to be eligible for graduation from the Respiratory Therapy program they must complete all the following:
 - Successful completion of all Respiratory Therapy didactic, laboratory, and clinical courses in the program curriculum with a minimum grade of C or higher. (Grades 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 Therapy competencies contained in the student handbook.
 - The student must attain a cumulative academic average of 2.0 GPA.
 - Students must officially apply to graduate and must complete the 69 credits reflected in the program curriculum.
 - All students must complete and receive verification by the Office of the Registrar of their fulfillment of all course requirements

Requirements: RC100, RC200, RC201, RC205, RC221, RC250, RC251, RC255, RC256, RC265, RC275, RC280, RC285, RC1100, RC1200, RC2100, RC2200

Support Courses: BIO207 (OR BIO 201 OR 205), BIO208 (OR BIO 202 OR 206)

A minimum of 42 credits for the major must be taken at Carlow.

SURGICAL TECHNOLOGY MAJOR (Associate of Science)

Carlow's Associate of Science in Surgical Technology is a 68-credit program that offers students education and training to become certified surgical technologists. Surgical technologists are essential to the functioning of a surgical setting. They are trained to arrange equipment and set up operating rooms, interface with patients by transporting them to and from surgery, sterilize equipment, disinfect surgical sites, and maintain a count of bandages, sponges, and other equipment to ensure everything is accounted for before and after a procedure. SUR courses are taught at the Energy Innovation Center Pittsburgh.

Students are eligible to sit for the certification as a Tech in Surgery – Certified TS-C (NCCT) through the NCCT (National Center for Competency Testing) upon graduation. Students can seamlessly transition to a bachelor's degree program at Carlow University in healthcare data analytics, nursing, health administration, or another field.

LEARNING OUTCOMES

- Provide care in a responsible, accountable manner and within ethical-legal dimensions.
- Utilize appropriate medical terminology.
- Be able to identify and assume appropriate responsibility for patient care.
- Relate principles of asepsis to the surgical setting.
- Utilize principles of Surgical Technology to meet the needs of the surgical patient in the OR, Ambulatory Surgery Unit, GI Lab, Cardiac Cath Lab, and Post Anesthesia Care Unit.
- Organize the sterile surgical field to provide safe and efficient surgical care to the patient.
- Perform with knowledge, skills, and affective behaviors of a competent entry-level Surgical Technologist.
- Demonstrate a basic understanding of the concepts of pharmacology.
- Demonstrate effective oral and written communication methods necessary for the profession.

SURGICAL TECHNOLOGY PROGRAM POLICIES

Surgical Technology policies are explained fully in the Surgical Technology Program Student Handbook. Refer to it for specific, complete information. The Surgical Technology program 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:

- Admitted students must have an overall Grade Point Average (GPA) of 2.0, with a 2.5 GPA in their previously completed science courses.
- At all times the student must maintain a cumulative 2.0 GPA and a 2.5 GPA in sciences, or risk being placed on probationary status.
- All ST courses must be completed with a minimum of a “C” before progressing into the next level of course.
- Any student whose progression has been halted or who is seeking to repeat a failed course will be readmitted to the ST program under a “space available” basis.
- Surgical Technology students will be required to complete clinical rotations, which will require students to travel to the clinical sites.
- All Surgical Technology students are required to pass a physical exam, background checks, fingerprints, and drug screens, as well as maintain professional liability insurance, immunizations, CPR certification, and other requirements as described in the Surgical Technology Program Student Handbook.
- For the student to be eligible for graduation from the Surgical Technology program they must complete all the following:
 - Successful completion of all Surgical Technology didactic, laboratory, and clinical courses in the program curriculum with a minimum grade of C or higher. (Grades 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 Surgical Technology competencies.
 - The student must attain a cumulative academic average of 2.0 GPA.
 - Students must officially apply to graduate and must complete the 68 credits reflected in the program curriculum.
 - All students must complete and receive verification by the Office of the Registrar of their fulfillment of all course requirements

Requirements: SUR-101, SUR-102, SUR-120, SUR-121, SUR-270, SUR-271, BIO-207, BIO-208, BIO-217, EN-262, HIM-102, and PH-149

A minimum of 18 credits for the major must be taken at Carlow.

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 health care: 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 and PY-122; 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, 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. For 2nd degree students, NU 102 and 110 are prerequisites or corequisites.

NU 300 Health Coach

This course provides a study of key issues concerning health care and is aimed at developing heightened understanding of, and practical approaches to, supporting patients in the community. Students identify obstacles to effective health care, as well as team-based strategies, for enabling at-risk patients to play more active roles in promoting their health and wellbeing. Students will develop a comprehensive series of bio-psycho-social insights for promoting positive health behaviors, enabling patients to move past their perceived obstacles and boosting overall adherence. This course provides students with the academic foundation and preparation for effectively serving as health coaches in the community. 4 credits

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, MAT 115.

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 bio-psycho-social 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 that 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 that is not already offered as a course. Students design the course with the consent of a faculty member. Credits vary

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 Evidence-Based 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 415/4151 NCLEX Seminar I/NCLEX Seminar 2

NCLEX Seminar I and NCLEX Seminar 2. 1.5 credits each

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 healthcare needs of the individual, family, aggregate and community can be met. Both community-based and community-focused approaches are included. The levels of prevention, health promotion, epidemiological processes, health education, evidence-based practice, fiscal responsibility, and public health issues and practices are discussed, so that the student can apply the nursing process in distributive healthcare settings. 4 credits (3 theory, 1 clinical)

PREREQUISITE: COMPLETION OF ALL JUNIOR-LEVEL NURSING COURSES.

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 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 patient-centered 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. For 2nd degree students, NU 3121/3122 and NU 320 are prerequisites or corequisites.

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 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 (e.g., 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 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 Health Care Providers and Systems (HCAHPS) frameworks. The student will develop a written proposal for a quality improvement project derived from evidence-based 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 credit (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 are 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)

PREREQUISITES: NU 412 AND 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 healthcare delivery system. Areas of knowledge that professional nurses require in order to be effective in the changing healthcare 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 competency. 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, emphasizing 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 credit (1 theory/0 clinical)

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)

PREREQUISITES: 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.

credits (1.75 theory, .25 clinical)

PREREQUISITE: NU 405, NU 412, NU 413, NU 430, NU 437; must complete all NU courses prior to taking NU 435

COREQUISITE: NU 440 & NU 450.

NU 437 (POL 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 healthcare environment. Legal and ethical principles that guide professional nursing practice are discussed. Political forces that influence change in contemporary health care and healthcare reform are examined. The leadership roles of professional nurses in these areas are explored. 3 credits (3 theory, 0 clinical)

PREREQUISITES: 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 (4 theory, 0 clinical)

PREREQUISITES: 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)

PREREQUISITES: NU 412 AND NU 413

PRACTICAL NURSE

PNU 100 Health Promotion, Safety, and Infection Control

This course will introduce nursing and the role of the Licensed Practical Nurse in today's healthcare system. It examines the healthcare

system and methods of delivery of nursing care. It examines the concepts of health, illness, stress, and health promotion. It presents the holistic approach to promoting wellness. It addresses the cultural, educational, social, legal, and ethical aspects that influence nursing care. It provides information on guidelines for patient safety and infection control, specifically identifying risk factors and strategies utilized in the care of patients to promote health. 1 credit

COREQUISITES: SKW-101, BIO-207, BIO-217

PNU 101 Nursing Fundamentals

This course introduces the fundamentals of nursing which include: the components of the nursing process; critical thinking; and clinical judgement. The nurse uses these fundamentals to develop good clinical reasoning skills required for desired patient outcomes. Students are introduced to the basic nursing need of patients, and the independent and dependent nursing actions they can perform to meet those needs. The fundamentals of direct patient-centered care using the nursing process to guide safe, competent, legal, and ethical nursing practice are introduced. Students are given the opportunities in clinical settings to apply assessment and communication skills, and technology while beginning to implement basic nursing care interventions. 4 credits

PREREQUISITES: SKW-101, BIO-207, BIO-217, PNU 100

COREQUISITES: PNU 110, HIM 102, PNU 150

PNU 110 Pharmacology for the Practical Nurse I

This course examines key content areas to conceptualize the important components of nursing pharmacology related to pharmacokinetics, pharmacodynamics, and physiology. Major drug groups will be explored in terms of drug classifications, indications, mechanisms of action, adverse effects, contraindications, quality, safety and the nursing process. The principles of altered pharmacodynamics relative to populations, age and ethnicity are included. Specific nursing responsibilities related to drug administration are emphasized, including medication calculations. 2 credits

PREREQUISITES: SKW-101, BIO-207, BIO-217, PNU 100

COREQUISITES: PNU 101, HIM 102, PNU 150

PNU 111 Pharmacology for the Practical Nurse II

This course will focus on the key components relative to Intravenous Therapy. Key terms associated with Intravenous therapy will be an essential component for this practicum skills course. Administration of fluid, electrolytes and solutions, nutritional formulas, intravenous delivered medications will be the primary focus in this course. Specific nursing responsibilities related to administration of intravenous therapy are emphasized, including medication calculations and the role of the nurse in monitoring of intravenous fluid. Identify and demonstrate the use of equipment that support IV therapy, including peripheral access devices. Application of the nursing process in the care, maintenance and administration of intravenous therapy are identified. 1 credit

PREREQUISITES: SKW-101, BIO-207, BIO-217, PNU 100

COREQUISITES: PY 101, PNU 151

PNU 150 Professional Practice Lifespan

This course examines the principles of growth and development across the life span. It specifically provides knowledge about biological, psychological, cognitive/intellectual, social, and spiritual needs of patients from the infant to the elderly person so that care can be planned according to these needs. The student will learn about the stages of growth and development and age specific characteristics and needs for the infant, toddler preschool child, school age child, adolescent, early adulthood, middle aged adults, and the elderly. An introduction to Freud's theory of personality and the mind, Kohlberg's theory of moral development, Erikson's theory of psychosocial development, and Piaget's theory of cognitive development. The nursing process is applied to the growth and development characteristics and health care needs across the life span. Health promotion activities for age groups along the continuum of life are identified. It examines loss, grief, and end-of-life care. 4 credits

COREQUISITES: PNU 101, HIM 102, PNU 110

PNU 151 Professional Practice Adult I

This course examines the use of the nursing process in providing care for adult patients who are affected with medical/surgical health problems related to cardiovascular, respiratory, and neurological conditions. The core components of these specific system disorders and diseases include: etiology, signs and symptoms, nursing diagnosis and interventions. The relationship of fluids, electrolytes, acid-base balance and nutrition to disorders and disease is identified. It presents an understanding of the concepts that are required for the application of basic direct nursing actions to support and maintain positive patient outcomes. 4 credits

PREREQUISITES: SKW-101, BIO-207, BIO-217, HIM 102, PNU 100, PNU 101, PNU 110, PNU 150

COREQUISITES: PSY 101, PNU 111

PNU 250 Professional Practice Adult II

This course examines the use of the nursing process in providing care for adult patients related to elimination, mobility, and maintenance of skin integrity. It provides instructions and practice in the care of patients with various types of illness and incapacities. The LPN student is introduced to his/her role in the direct care of surgical patients. It describes strategies to address the simple nursing, short term nursing and long-term nursing needs of patients. It includes utilizing the nursing process and critical thinking and employing communication technology, community resources and socio-cultural factors in providing nursing care to adult med-surg patients. 6 credits

PREREQUISITES: SKW-101, BIO-207, BIO-217, PNU 100, PNU 101, PNU 110, PNU, 111, PNU 150, HIM 102, PSY 101, PNU 151

COREQUISITES: PNU 251, PNU 252

PNU 251 Transition to Practice

This course is a culmination of theory and practice components that define the role of the LPN as a leader, advocate, and healthcare team member. Leadership styles will be examined, along with characteristics that define leaders. The significance of interpersonal relationships and effective communication will be evaluated. Meeting the needs of patients, families, and communities in the delivery of care is paramount in this role. The importance of health care organizations and need for active participation in nursing organizations will be examined. The recognition of career opportunities and need for continuing education is explored. 5 credits

PREREQUISITES: SKW-101, BIO-207, BIO-217, PSY 101, PNU 100, PNU 101, PNU 110, PNU 111, PNU 150, PNU 151

COREQUISITES: PNU 250, PNU 252.

PNU 252 NCLEX PN PREP

This course will provide an in-depth review in preparation for taking the NCLEX-PN exam. The course includes a review of the structure and scoring on the NCLEX-PN. 1 credit

PREREQUISITES: SKW-101, BIO-207, BIO-217, PNU 100, PNU 101, PNU 110, PNU 111, PSY 101, PNU 150, PNU 151

COREQUISITES: PNU 250, PNU 251.

PUBLIC HEALTH

PUH 101 Introduction to Public Health

This introductory course provides students interested in a career in public health with a broad and comprehensive overview of concepts, empirical research, and public health practice in public and community health sciences. The first half of the course describes ways to define and measure health and illness, the social construction of illness, social and behavioral determinants of health, and health disparities, including socioeconomic status (SES), race/ethnicity, gender, and age. In the second half of the course, students will learn about social and behavioral theories of health-related behavior change, health promotion strategies and methods, and public policy. 3 credits

RESPIRATORY THERAPY

RC 100 Introduction to Respiratory Care Principles

This introductory course is the entry point for all students interested in exploring respiratory therapy. The course is designed to introduce the students to the fundamental principles of respiratory care. Topics include the historical development of the respiratory profession and organizational structure, fundamental principles of health care reimbursement, basic legal and ethical aspects of respiratory care practice, infection control, patient safety, and OSHA. Students will also explore the structure of medical language, the body in health and disease, hematology, immunology, education, and health promotion. 1 credit

RC 117 Enhanced Theories in Respiratory Care

This course is designed to provide the student with a dynamic view of various advanced respiratory care applications and procedures. The student will investigate new concepts and research related to improvement of patient care. Areas of concentration will include advancements in smoking cessation programs and the role of respiratory therapists as a health coach, advancements in the diagnosis and treatment of COPD, the role of respiratory therapists in hyperbaric oxygenation applications, new advances in management of microbiological pathogens, interventional pulmonary procedures, and enhanced theories for caring for patients receiving mechanical ventilation. 3 credits

RC 127 Research and Evidence-Based Practice in Respiratory Care

This course is designed to provide the student with a dynamic view of evidence-based practice principles focused on various new respiratory care applications and procedures. The student will investigate new concepts and research related to the improvement of patient care. Areas of concentration will include e-cigarettes, new advances in the effects of smoking, hyperbaric oxygenation applications, invasive and non-invasive cardiopulmonary procedures, exploration of imagery scans, and atypical mechanical ventilation. 3 credits

RC 200 Respiratory Care Equipment I

This course is designed to instruct the students on the 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. The students are also 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. 3 credits

PREREQUISITES: RC 100, BIO 207 or CHM 105 or BIO 157

COREQUISITES: RC 250, RC 221, RC280

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: RC 200, RC 250, RC 221, RC 280

COREQUISITES: RC 251, RC 205/305, RC 255/355, RC 256/356, RC 1200/3200

RC 205/305 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: RC 200, RC 250, RC 221, RC 280

COREQUISITES: RC 201, RC 251, RC 255/355, RC 256/356, RC 1200/3200

RC 207 Respiratory Care Practice in Acute and Alternative Settings

This course will explore respiratory care practice in the acute care and alternative care arenas. Focus will include responsibilities of respiratory clinicians in the ER, flight transport, exercise stress testing, metabolic testing, telemedicine, and informatics. 3 credits

RC 217 Patient Safety and Quality Improvement in Respiratory Care

This course provides foundational principles, concepts, and methods for promoting and improving healthcare quality and patient safety within the profession of respiratory care. Students will investigate micro and macro-system levels with a focus on application at the micro-system level in the healthcare environment. 3 credits

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 the 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 etiology, management, and prognosis of the various respiratory diseases. 3 credits

PREREQUISITE: RC 100, BIO 207 or CHM 105 or BIO 157

COREQUISITES: RC 200, RC 250, RC 280

RC 227 Advanced Respiratory Care Pathophysiology

Respiratory clinicians will discuss and investigate new respiratory care pathophysiological principles, structure, and theories including new advances in the pathology of ARDS and COPD patients, bronchiolitis obliterans with organizing pneumonia, sudden infant death syndrome, pertussis, SARS – severe acute respiratory syndrome, lymphangioleiomyomatosis, hantavirus, the effect of thyroid disorders on the human body, pulmonary alveolar proteinosis, and rhabdomyolysis. 3 credits

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 principles 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: RC 200, RC 250, RC 221, RC 280

COREQUISITES: RC 440

RC 250 Respiratory Care Equipment Lab I

This course is designed to allow the students the 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, BIO 207 or CHM 105 or BIO 157

COREQUISITES: RC 200, RC 221, RC 280

RC 251 Respiratory Care Equipment Lab II

This course is designed to allow the students the 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: RC 200, RC 250, RC 221, RC 280

COREQUISITES: RC 201, RC 205/305, RC 255/355, RC 256/356, RC 1200/3200

RC 255/355 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 200, RC 250, RC 221, RC 280

COREQUISITES: RC 201, RC 251, RC 205/305, 256/356, RC 1200/3200

RC 256/356 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. 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 200, RC 250, RC 221, RC 280

COREQUISITES: RC 201, RC 251, RC 205/305, 255/355, RC 1200/3200

RC 265/455 Mechanical Ventilation Concepts II & Critical Care Concepts

This course is a continuation of Mechanical Ventilation Concepts I, covering advanced modes of mechanical ventilation, ventilator graphics, and special techniques used in ventilatory support. The students will also be instructed on advanced cardiopulmonary monitoring procedures and techniques utilized in the management of patients in the critical care setting. Topics include 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 201, RC 251, RC 205/305, RC 255/355, RC 256/356
COREQUISITES: RC 275/380, RC 2100/4100

RC 275/380 Neonatal and Pediatric Respiratory Care I with Lab

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. Students will be instructed and participate in a lab setting with an emphasis on the skills related to capillary heel sampling, transcutaneous monitoring, apnea monitoring, oxyhoods, isolettes, and neonatal resuscitation. 2 credits

PREREQUISITES: RC 201, RC 251, RC 205/305, RC 255/355, RC 256/356
COREQUISITES: RC 265/455, RC 2100/4100

RC 277 Medical Ethics and Legal Principles in Respiratory Care

This course will provide students with an introduction to basic ethical and legal topics in healthcare and respiratory care practice. Ethical and legal principles, definitions, applications, and case study scenarios will be utilized to emphasize knowledge, learning, and practical applications in respiratory care. 3 credits

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 principles 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. 2 credits

PREREQUISITES: RC 100, BIO 207 or CHM 105 or BIO 157
COREQUISITES: RC 200, RC 250, RC 221

RC 285/490 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. 2 credits

Prerequisite: RC 265/455, RC 275/380; BIO 207, BIO 208, CHM 105 or CHM 111/113 (BS program), BIO 157 (BS program)
Co-requisites: RC 2200/4200

RC 307 Advanced Respiratory Care Pharmacology

Respiratory clinicians will examine new pharmacology medications, principles, structure, and theories of operation utilized within respiratory care. Specific medication categories to be explored will include cardiac agents, diuretics, antibiotics, surfactants, vasoagents, anti-inflammatory agents, mucolytics, new bronchodilators, anti-arrhythmic agents, applicable medical gases (CO₂, inhaled sedatives etc.), and sedative and hypnotic agents. 3 credits

RC 317 Leadership and Management Issues in Respiratory Care

Students within this course will examine various theoretical constructs as a means of becoming more aware of their own leadership styles. Application of strategic management models will be studied to improve respiratory leadership and management skills in others. Students will identify and apply strategic models to analyze problems, formulate strategic solutions, and make sound decisions in the respiratory care forum. 3 credits

RC 327 (POL 327) Respiratory Care Education

The course examines the key educational concepts including teaching and learning strategies and techniques, learner characteristics, learning styles, technology in education, and the evaluation of teaching and learning. This course will also extend into the ethical, legal,

and economic foundations of the educational process, health literacy in the adult client population, gender, socioeconomic, cultural attributes of the learner, and educating learners with disabilities. 3 credits

RC 407 Capstone – Respiratory Care Project/Portfolio

This course focuses on the creation and development of a senior respiratory care project and portfolio. Students will select an approved respiratory care special project topic and complete a comprehensive analysis, research, report, and presentation discussing all aspects of the topic selected. The student will also learn the proper procedure and expectations while producing a professional respiratory care portfolio. 2 credits

PREREQUISITES: Completion of all previous level BSRC DC courses. RC 117, RC 127, RC 207, RC 217, RC 227, RC 277, RC 307, RC 317, RC 327, RC 407

RC 440 Microbiology for Respiratory Care

This course covers the classifications, morphology, cultivation, and inhibition of microorganisms commonly found within healthcare environments. The emphasis is on bacteriology. 3 credits

PREREQUISITES: RC 200, RC 250, RC 221, RC 280

COREQUISITES: RC 240

RC 1100/3100 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: RC 200, RC 250, RC 221, RC 280

RC 1200/3200 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. 3 credits

PREREQUISITES: RC 1100/3100

COREQUISITES: RC 201, RC 251, RC 205/305, RC 255/355, RC 256/356

RC 2100/4100 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 the initiation of 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 set-up, and optimal setting selection.

Prerequisites: RC 1200/RC3200

Co-requisites: RC 265/455, RC 275/380

RC 2200/4200 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 include 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.

Prerequisites: RC2100/RC4100

Co-requisites: RC 285/490

SURGICAL TECHNOLOGY

SUR 101 Surgical Theory I with Lab

This course is an orientation to surgical technology theory, legal concepts, risk management, ethical issues, the surgical patient, special populations, biomedical science and minimally invasive procedures. Emergency situations and all-hazards preparation, physical environment and safety standards, and preventing perioperative disease transmission will be discussed. 6 credits
PREREQUISITES: BIO 208, BIO 217, HIM 102

SUR 102 Surgical Theory II with Lab

In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, creation and maintenance of the sterile field, surgical pharmacology and anesthesia. Instrumentation, equipment, supplies, surgical case management, hemostasis, wound healing, wound closure, and diagnostic procedures will also be covered in this course. 6 credits
PREREQUISITE: SUR 101

SUR 120 Surgical Procedures I with Lab

This course focuses on General, Obstetric and Gynecologic, Otorhinolaryngologic, Genitourinary, and Ophthalmic procedures. The student will learn to identify the names and uses of instruments, supplies, and drugs of each specialty; describe the pathology and related terminology of each system or organ that prompts surgical intervention, and discuss preoperative diagnostic procedures related to surgical procedures. 6 credits
PREREQUISITES: SUR 102

SUR 121 Surgical Procedures II with Lab

This course is the logical continuation of Surgical Procedures I and will focus on the Genitourinary, Plastic and Reconstructive, Oral Maxillofacial, Cardiothoracic, Peripheral Vascular, and Neurosurgery Surgeries. The student will learn the names and uses of instruments, supplies, and drugs of each specialty; describe the pathology and related terminology of each system or organ that prompts surgical intervention, discuss preoperative diagnostic procedures related surgical procedures. 6 credits
PREREQUISITE: SUR 120

SUR 270 Clinical Externship I

This course is a supervised clinical experience in local hospital surgical settings focusing on gaining surgical technologist experience on minor surgical procedures and fulfilling the weekly objectives. Students will complete a minimum of 120 surgical cases across 2 terms of clinical experiences with each course introducing a new variety of case types for students to meet the required number of total cases, total first scrubs, and total second scrubs. 7 credits
PREREQUISITES: SUR 121

SUR 271 Clinical Externship II

A continuation of SUR270, this course is a supervised clinical experience in local hospital surgical settings focusing on gaining surgical technologist experience on minor surgical procedures and fulfilling the weekly objectives. Students will complete a minimum of 120 surgical cases across 2 terms of clinical experiences with each course introducing a new variety of case types for students to meet the required number of total cases, total first scrubs, and total second scrubs. 7 credits
PREREQUISITES: SUR 270

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Chrystel Gabrich
Phyllis A. Hackbart
Susan Sollon Hamilton
Mary Joy Haywood, RSM
Monique Hockman
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Dale Huffman
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Irene Lietz
Marilyn Llewellyn
Emma Lucas-Darby
Diane Matthews
Cynthia Busin Nicola
Susan O'Rourke
Joan Reale
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Sheila G. Roth
Mary C. Rothenberger
Linda Schifino
Roberta Schomberg
William Stewart
Judith Touré

Margaret S. Turner
Marlene Winter
Eleanor Wymard*

DISTINGUISHED FACULTY

Suzanne M. Steiner

* *deceased*

CAMPUS DIRECTORY

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Academic Affairs

Convent of Mercy West Wing, First Floor
P: 412.578.6072
E: academicaffairs@carlow.edu

Admissions

Antonian Hall, Third Floor
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E: admissions@carlow.edu

Alumni Engagement

Convent of Mercy West Wing, Third Floor
P: 412.578.6274
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Campus Ministry

University Commons, Second Floor
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E: campusministry@carlow.edu

Carlow Bookstore

University Commons, First Floor
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E: bookstore@carlow.edu

Career Development

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Center for Global Engagement

P: 412.578.6378
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Disabilities Services Office

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E: dso@carlow.edu

Financial Aid

Student Hub, Antonian Hall, Second Floor
P: 412.578.6389
E: finaid@carlow.edu

Grace Library

University Commons
P: 412.578.6139

Office of the President

University Commons, Fifth Floor
P: 412.578.6123

Registrar's Office

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E: registrar@carlow.edu

Student Accounts

Student Hub, Antonian Hall, Second Floor
P: 412.578.6389
E: studentaccounts@carlow.edu

Student Affairs

University Commons, Second Floor
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Technology Resources (Help! Services)

University Commons, Second Floor
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E: help@carlow.edu

University Advancement

Convent of Mercy West Wing, Third Floor
P: 412.478.6019

CONFERENCE FOR MERCY HIGHER EDUCATION

- Carlow University - Pittsburgh, PA 15213
- College of Saint Mary - Omaha, NE 68124
- Georgian Court University - Lakewood, NJ 08701
- Gwynedd-Mercy College - Gwynedd Valley, PA 19437
- Maria College - Albany, NY 12208
- Marian Court College - Swampscott, MA 01907
- Mercyhurst College - Erie, PA 16546
- Misericordia University - Dallas, PA 18612
- Mount Aloysius College - Cresson, PA 16630
- Mount Mercy College - Cedar Rapids, IA 52402
- Saint Joseph College - West Hartford, CT 06117
- Saint Joseph's College - Standish, ME 04062
- Saint Xavier University - Chicago, IL 60655
- Salve Regina University - Newport, RI 02840

- Trocaire College - Buffalo, NY 14220
- University of Detroit Mercy - Detroit, MI 48219

VISITORS

Visitors to Carlow University must abide by all campus policies, including those pertaining to health and safety. Prospective students are encouraged to schedule a campus tour with the Office of Admissions. Those needing mobility assistance should alert the office with which they have an appointment. Visitors who wish to park on campus must stop in the dispatch office in Frances Warde Hall to obtain a temporary parking pass.

CAMPUS MAP

