

Clarion University of Pennsylvania

UNDERGRADUATE CATALOG 2011-2013



Navigating the Catalog

Organization

Clarion University is comprised of three colleges (Arts and Sciences, Business Administration, Education and Human Services), one school (Nursing and Allied Health), one division (Graduate Studies), and Venango Campus. Each of these units consists of smaller subunits called departments or programs. The academic year is divided into two terms: (Fall, Spring) and three summer sessions.

Where to find it

The catalog is composed of two main sections. The first contains information about the academic calendar, admissions, registration, tuition and fees, financial aid, student services, and student activities.

The second section describes the university's academic programs. The curriculum section begins with a description of the General Education program, which every student receiving an undergraduate degree from Clarion completes. Next, each of the six major units of Clarion University (the three colleges, the School of Nursing and Allied Health, the Graduate Studies Division, and the Venango Campus) is described. Each unit's description is composed of a brief overview of the division followed by more in-depth descriptions of the departments and programs making up that division. Within each unit, departments and programs are presented in alphabetical order. For example, in the College of Arts and Sciences, the first program listed is anthropology. The anthropology description, like the entries for all programs, describes the field, lists the required courses for majoring in that field, provides ways to get more information about Clarion's program, and provides brief descriptions of all the courses offered by that academic program.

Still can't find it?

In addition to the Table of Contents, an index is included at the back of the catalog. If you are having trouble finding information about an academic program, consult the Index.

Definitions

The academic terms defined below are used throughout this catalog.

Academic credit. A measure of the total time commitment an average student is expected to devote to learning per week of study. Generally, one unit of credit represents a total of three hours per week of in-class and out-of-class work (Carnegie Unit of Credit). At Clarion University, a three-credit lecture class is generally required to meet for 2,250 minutes, excluding the final examination period.

Course. A subject, or an instructional subdivision of a subject, offered through a single term. Each course offered by the university is assigned a course level. Courses numbered 000-099 cannot be applied toward graduation; courses numbered 100-299 are lower division, and courses numbered 300-499 are upper division.

Curriculum. An organized program of study arranged to provide integrated cultural or professional education.

Discipline. A branch of learning or field of study, e.g., mathematics, history, psychology.

Electives. Courses that students may choose to take, as contrasted with required courses.

Interdisciplinary or Multidisciplinary. A course of study from two or more academic disciplines.

Major. A primary undergraduate or graduate field of specialized study.

Minor. A secondary undergraduate field of specialized study.

Prerequisite. A course or other educational requirement that must be completed prior to another course or before proceeding to more advanced study.

Semester. One-half the academic year, excluding summers. At Clarion, an academic year is comprised of a Fall and Spring semester.

Seminar. A small group of students studying a subject with direction from a faculty member. Although practices vary, students may do original research and exchange results through informal lectures, reports, and discussions.

Sequence. Two or three closely related courses that typically must be taken in a specified order.

Quality-Point Average (QPA). QPA is a quality-point average. It can range from 0.00 (all Es) to 4.00 (all As).

Student Responsibility for Academic Requirements

Provisions in the Clarion *Undergraduate Catalog* cannot be considered an irrevocable contract between the university and the student.

The university makes every effort to keep information in the catalog current. It must reserve the right, however, to amend any academic, administrative, or disciplinary policies or regulations and to update fees or service charges described in this catalog without prior notice to people affected. Students are held responsible for reading and understanding the academic, administrative, and disciplinary policies or regulations and for understanding general education requirements. They are held responsible for the requirements of a major in effect at the time they officially declare a major. If students change majors, they are responsible for the requirements of the major in effect when they officially change majors.

Requirements for graduation as well as those for various curricula and degree programs may change after students matriculate at Clarion. In most instances, such changes will not be retroactive, although students will have the option to elect to meet the new program requirements, if desired. Exceptions may be necessary when changes in professional certification or licensure standards mandate such changes in requirements or programs.

For the most recent catalog, please go to our website at www.clarion.edu/catalog

Clarion University of Pennsylvania is authorized under federal law to enroll non-immigrant alien students.

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Accreditations, Approvals, Certifications, Affiliations, and Registrations

- AACSB International—The Association to Advance Collegiate Schools of Business
College of Business Administration/Baccalaureate and Master’s degree programs
- Accreditation Association for Ambulatory Health Care
Division of Student and University Affairs/Keeling Student Health Center
- American Bar Association (ABA)
College of Business Administration/Department of Finance/Paralegal Studies
- American Chemical Society
College of Arts & Sciences/B.S. Chemistry (approved)
- American Library Association (ALA)
College of Education and Human Services/Dept. of Library Science/Master of Science in Library Science
- Association for Childhood Education International (ACEI)
College of Education and Human Services/Elementary Education
- Association of Small Business Development Centers (ASBDC)
Small Business Development Center
- Certified Financial Planner Board of Standards, Inc.
College of Business Administration/BS Business Administration
- College Reading and Learning Association (CRLA)
College of Arts and Sciences/Department of English/Writing Center Tutoring Program (certified)
Division of Enrollment Management/Center for Academic Enrichment Tutoring Program (certified)
Venango Campus/Learning Support Centers (certified)
- Council for Exceptional Children (CEC)
College of Education and Human Services/Special Education
- Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)
of the American Speech Language Hearing Association
Department of Communication Sciences and Disorders/Master’s Degree in Speech Language Pathology
- Council on Academic Accreditation of the American Speech Language Hearing Association (ASHA)
Department of Speech Pathology and Audiology/Master’s Degree in Speech Language Pathology
- International Association of Counseling Services Inc. (IACS)
Division of Student and University Affairs/Department of Counseling Services
- International Reading Association (IRA)
College of Education and Human Services/Reading
- Middle States Commission on Higher Education
3624 Market Street, Philadelphia, PA 19104-2680
Phone: 215-662-5606
- National Association for the Education of Young Children (NAEYC)
College of Education and Human Services/Department of Education/Early Childhood Program
- National Association of Schools of Art and Design (NASAD)
College of Arts and Sciences/Dept. of Art/BA in Art; BFA in Art
- National Association of Schools of Music (NASM)
College of Arts and Sciences/Department of Music/Bachelor of Science in Music Education;
Bachelor of Music with Elective Studies in Business
- National Council for Accreditation of Coaching Education (NCACE)
Division of Student and University Affairs/Department of Athletic Training, Sports, and Wellness/
Coaching Education Program
- National Council for Accreditation of Teacher Education (NCATE)
College of Education and Human Services
- National Council for the Social Studies (NCSS)
College of Education and Human Services/Social Studies

National Council of Teachers of English (NCTE)
 College of Education and Human Services/English

National Council of Teachers of Mathematics (NCTM)
 College of Education and Human Services/Mathematics

National Council of Teachers of Mathematics (NCTM)
 College of Education and Human Services/Secondary Mathematics

National League for Nursing Accrediting Commission (NLNAC)
 School of Nursing/Associate Degree Program
 School of Nursing/Baccalaureate Degree Program
 School of Nursing/Master's Degree Program

National Science Teachers Association (NSTA)
 College of Education and Human Services/Secondary Education

National Science Teachers Association (NSTA)
 College of Education and Human Services/Science Education and Secondary Science Education

Pennsylvania Department of Education/College of Education & Human Services/
 Teacher Certification Programs (approved)
 U.S. Department of Education (approved)
 U.S. Department of Veterans Affairs (approved)

It is the policy of Clarion University of Pennsylvania that there shall be equal opportunity in all of its educational programs, services, and benefits, and there shall be no discrimination with regard to a student's or prospective student's race, color, religion, sex, national origin, disability, age, sexual orientation/affection, veteran status or other classifications that are protected under Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and other pertinent state and federal laws and regulations. Direct equal opportunity inquiries to: Assistant to the President for Social Equity, Clarion University of Pennsylvania, 207 Carrier Administration Building, Clarion, PA 16214-1232, 814-393-2109, and direct inquiries regarding services or facility accessibility to 504/ADA Coordinator (Assistant Director for Social Equity), 207 Carrier Administration Building, Clarion, PA 16214-1232, 814-393-2000; (or to the Director of the Office for Civil Rights, Department of Education, 330 Independence Avenue, SW, Washington, DC 20201).

Table of Contents

Calendar	vii
General Information.....	1
Student and University Affairs.....	4
Center for Advancement	4
Center for Leadership and Involvement	6
Center for Residence Life Services.....	7
Center for Student Development	9
Athletic Training, Sports, and Wellness (ATSW)	10
Department of Auxiliary Operations.....	14
Student-Related Services, (Libraries, Music Program, Dramatic Organizations, Debate, Parking and Automobile Regulations	14
Academic Information	16
Admissions.....	16
Undergraduate Degree Programs	21
Academic Opportunities	23
Center for Academic Achievement	26
Extended Programs	29
Academic Policies.....	30, 31
Financial Information.....	39
Financial Assistance.....	39
Undergraduate Scholarships	42
University Curricula.....	43
General Education Distribution	44
College of Arts and Sciences	45
Anthropology.....	47
Art.....	49
Biology	53
Chemistry	61
Communication	65
Computer Information Science.....	72
Cooperative Engineering Program	75
Economics	75
Engineering.....	75
English.....	75
Geography	82
Geology/Earth Science	84
History	87
Liberal Studies.....	91
Library Science.....	92
Mathematics	92
Military Science—ROTC.....	96
Modern Languages and Cultures.....	98
Music	105
Philosophy	111
Physics.....	113
Political Science	116
Pre-Professional Studies.....	118
Psychology	120
Sociology and Social Work	123
Theatre.....	126

Women’s Studies	130
College of Business Administration.....	131
Accounting	134
Economics	136
Finance	140
Industrial Relations.....	143
International Business	143
Management	143
Marketing	148
Real Estate	146
College of Education and Human Services	147
Human Services.....	148
Teacher Education	150
Education.....	154
Pre-K—4th Grade (Early Childhood) Education	154
Mid-Level Education: Grades 4–8	154
Environmental Education	155
Secondary Education.....	155
Health and Physical Education.....	163
Library Science.....	165
Music Education.....	168
Special Education and Rehabilitative Sciences	169
Speech Pathology and Audiology.....	175
Division of Research and Graduate Studies.....	177
Clarion University—Venango Campus.....	178
Division of Continuing Education.....	179
Venango Campus Honors Program	180
Student Affairs at Venango Campus	181
Associate of Science: Early Childhood Education.....	183
Associate of Science: Business Administration	184
Associate of Science: Paralegal Studies	184
Associate of Science: Rehabilitative Services.....	184
Associate of Science: Criminal Justice.....	185
Department of Arts and Sciences	186
Associate of Arts: Arts and Sciences.....	186
Bachelor of Science: Liberal Studies	186
Department of Applied Technology.....	186
Associate of Applied Science: Administration Technology	186
Associate of Applied Science: Industrial Technology.....	187
School of Nursing and Allied Health.....	190
Department of Nursing	190
Associate of Science in Nursing Program.....	192
Bachelor of Science in Nursing Program.....	193
Department of Allied Health	197
Associate of Science in Allied Health Program	197
Bachelor of Science in Medical Imaging Sciences Program	198
Associate of Science in Respiratory Care	199
Cooperative Education Internship Program.....	204
General Studies Courses	206
Directories.....	207
Index	229
Map of Clarion Campus and Clarion Campus Facilities	234-235
Map of Venango Campus and Venango Campus Facilities	236

Clarion University Academic Calendar 2011-12

(Subject to change without notice)

Fall Semester 2011

Registration for day and evening classes	Monday, August 29
Classes begin—8 a.m.	Monday, August 29
Labor Day Holiday	Monday, September 5
Mid-semester break begins —10 p.m.	Thursday, October 6
Mid-semester break ends—8 a.m.	Monday, October 10
<i>Friday classes meet in place of Tuesday classes</i>	Tuesday, November 22
Thanksgiving holiday begins—10 p.m.	Tuesday, November 22
Thanksgiving holiday ends—8 a.m.	Monday, November 28
Classes end—10 p.m.	Friday, December 9
Final examination period begins	Monday, December 12
Final examination period ends—10 p.m.	Friday, December 16
Semester ends—10 p.m.	Friday, December 16
Winter Commencement	Saturday, December 17
Semester grades due from faculty—Noon.	Thursday, December 22

Winter Intersession

Classes begin.....	Monday, December 19
Final Exams	Wednesday, January 11
Semester grades due from faculty—Noon	Friday, January 13

Spring Semester 2012

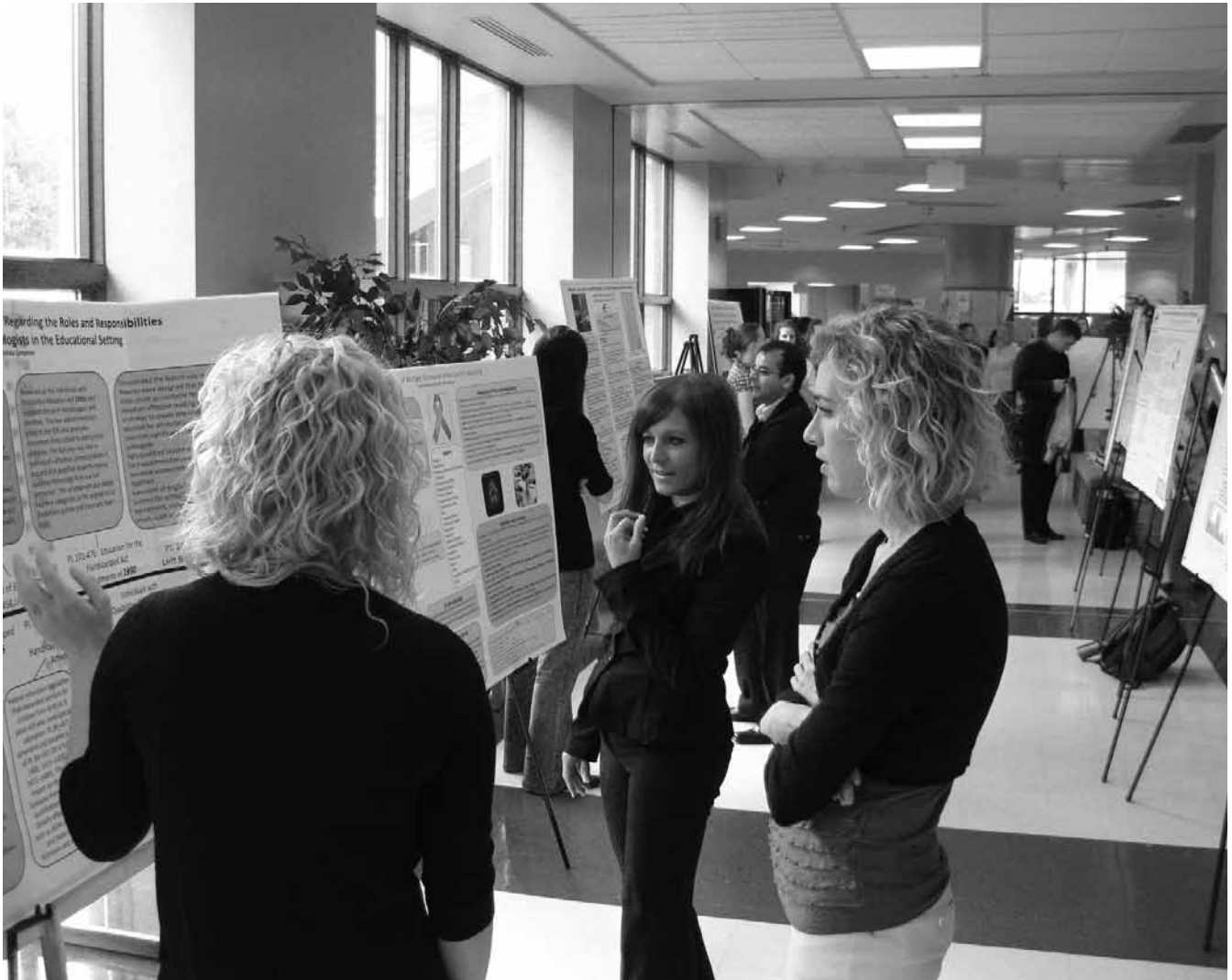
Registration for day and evening classes	Monday, January 23
Classes begin—8 a.m.	Monday, January 23
Winter holiday begins—10 p.m.	Friday, March 9
Winter holiday ends—8 a.m.	Monday, March 19
Classes end—10 p.m.	Friday, May 4
Final examination period begins—8 .am.	Monday, May 7
Final examination period ends—10 p.m.	Friday, May 11
Semester ends—10 p.m.	Friday, May 11
Spring Commencement.....	Saturday, May 12
Semester grades due from faculty—Noon	Thursday, May 17

Summer Sessions — 2012

Session I: Pre-session.....	May 14–June 1
Session II: Regular session	June 4–July 6
Session III: Regular session.....	July–August 9

Clarion University Academic Calendar 2012-13

See Office of the Registrar website:
www.clarion.edu/registrar





General INFORMATION

Mission

Clarion University seeks to excel in all that it does and challenges students to develop their talents, extend their intellectual capacities and interests, expand their creative abilities, and develop a respect and enthusiasm for learning that will extend throughout their lives. The university acknowledges that learning requires a partnership demanding hard work by students, faculty, and staff, and that learning extends beyond the classroom. The university community is dedicated to helping students see in themselves what they may become by creating opportunities to develop the knowledge, skill, and attitudes necessary for both enlightened citizenship and successful participation in a technologically advanced, global society.

Clarion University is primarily an undergraduate institution with selected graduate programs. Instructional programs—delivered on campus, throughout the state, and beyond via appropriate distance learning technologies—range from associate degrees and certificate programs to baccalaureate

degree programs in the arts and sciences and professional fields, graduate programs in selected fields, and continuing education. University programs are administered through campuses in Clarion and Oil City.

Clarion University seeks to admit, retain, and graduate students who are qualified and motivated, and to recruit, retain, and support highly qualified and dedicated faculty and staff. The university is a learning community that seeks diversity in its faculty, staff, and student body and values this diversity as providing richness in the learning process. This community strives to treat its members with civility and respect. Students, faculty, and staff value learning, contribute to the development of new knowledge through scholarly activities, and participate in community and public service responsive to the needs of society.

—Approved by the Council of Trustees on 1/18/01

Vision

Clarion University of Pennsylvania will serve the commonwealth ever more effectively as a high-quality, dynamic, technologically advanced, publicly-owned university dedicated to advancing knowledge with a focus on learning and collaborating with educational and business partners. Clarion University will be accessible to students from diverse backgrounds, accountable to its many constituencies, and actively engaged in the continuous improvement of its programs, services, faculty, and staff. Above all, Clarion University will prepare students to succeed in the global economy, to contribute to the economic and social well-being of the commonwealth and the nation, to play constructive roles in their communities, and to lead productive and meaningful lives, including a passion for continuous learning.

—Approved by the Council of Trustees on 1/18/01

Core Values

1. We believe in the learning potential of all our students who are willing to invest hard work in the pursuit of their education.
2. We are committed as a faculty, staff, and administration to creating opportunities for all our students to achieve success beyond their own expectations within an environment that cultivates tolerance, civility, and respect.
3. We value the individual relationship between student and faculty as central to the learning process and recognize the contributions of staff in providing the necessary support for that endeavor.
4. We believe that we exist to serve the needs of all people of the Commonwealth of Pennsylvania and to advance higher education as a public good.
5. We are committed to advancing our relationships with the larger communities of which we are a part.

—Approved by the Council of Trustees on 1/18/01

Non-Discrimination Statement

It is the policy of Clarion University of Pennsylvania that there shall be equal opportunity in all of its educational programs, services, and benefits, and there shall be no discrimination with regard to a student's or prospective student's race, color, religion, sex, national origin, disability, age, sexual orientation/affection, veteran status, or other classifications that are protected under Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and other pertinent state and federal laws and regulations. Direct equal opportunity inquiries to: Assistant to the President for Social Equity, 207 Carrier Administration Building, 840 Wood Street, Clarion, PA 16214-1232, 814-393-2109; and direct inquiries regarding services or facility accessibility to the compliance specialist, 207 Carrier Administration Building, 840 Wood Street, Clarion, PA 16214-1232, 814-393-2000; (or to the Director of the Office for Civil Rights, Department of Education, 330 Independence Avenue, SW, Washington, DC 20201).

Correspondence

The address for all administrative correspondence may be sent to the following:

Clarion University of Pennsylvania
840 Wood Street
Clarion, PA 16214-1232
Telephone: 814-393-2000

Clarion Campus

Now well into its second century of service to the people of Pennsylvania, Clarion University has successively been Carrier Seminary, a state normal school, a state teachers' college, a state college, and beginning July 1, 1983, a university in the Pennsylvania State System of Higher Education. Each phase of this development has marked a stage in the continuing effort of the institution to respond to the educational needs and aspirations of increasing numbers of students.

Today, Clarion University is a multi-purpose institution with an enrollment of more than 7,300 students offering associate's degrees in five areas; more than 90 baccalaureate programs leading to degrees in the arts, fine arts, nursing, and sciences; and 80 graduate programs leading to master's degrees in the business administration, education, library science, nursing, and sciences. Clarion University is recognized by 25 accrediting agencies.

The Clarion Campus of the university contains 128 acres and 43 buildings. Beyond the Clarion Campus, situated at the west end of the town of Clarion, is a 27-acre athletic complex with football, baseball, and practice fields and Memorial Stadium, seating 5,000 spectators. The university is within the Borough of Clarion some two miles north of Interstate 80 at Exits 62 and 64 and is approximately 2 1/2 hours' driving time from the urban centers of Pittsburgh, Erie, and Youngstown. High on the Allegheny Plateau overlooking the Clarion River, the rural setting is in the midst of one of Pennsylvania's most scenic resort areas.

Among facilities supporting programs and students at Clarion University are the Carlson and Suhr libraries, the George R. Lewis Center for Computing Services, more than two dozen computer laboratories, a planetarium, modern science laboratories having excellent instrumentation; a modern business administration building; technologically equipped classrooms for library science; radio and television studios and experimental audio-visual facilities in the Department of Communication; a writing center, tutorial services, and a counseling center to assist students who can benefit from these services; a state-of-the-art recreation center; residence halls that are completely wired for high speed Internet access; a modern student center; and excellent food services across the campus.



Clarion University–Venango Campus

Venango Campus of Clarion University, established in 1961, was the first branch campus in the Pennsylvania State System of Higher Education. Located in Oil City, Venango Campus is scenically situated on 62 acres surrounded by heavily-wooded foothills overlooking the Allegheny River.

Venango Campus offers a personal and challenging academic experience with small classes that maximize student-faculty interaction and student success. The campus' programs and services are designed to meet a wide range of needs and are offered with the flexibility that is required for a diverse community of learners. Many academic programs utilize partnerships with medical, business, industrial, and educational organizations that bring real-world, technical expertise and resources into its curriculum. Students and faculty utilize the latest in electronically enhanced learning and teaching tools and the fully wireless campus provides students the flexibility of accessing university resources anywhere on campus. A wide range of cultural events and activities, including a comprehensive intramurals and outdoor recreation program and nationally competing club sports teams, offer students and community members opportunities for engagement and personal enrichment.

To earn a Clarion University associate degree, a minimum of 30 credit hours must be completed at Clarion University–Venango Campus. Venango Campus offers programs for both part-time and full-time students. Students may study toward associate degrees in administration technology, allied health, arts and sciences, business administration, criminal justice, early childhood education, industrial technology, paralegal studies, nursing, rehabilitative services, and respiratory care. An Honors Program for students with high academic potential offers an enhanced college experience.

Students may also complete the first two years of study toward any of Clarion University's 90-plus bachelor's

degree programs. Complete baccalaureate degrees offered at Clarion University–Venango Campus include medical imaging sciences with multiple concentrations, nursing, and liberal studies. A Master of Science in Nursing degree is offered with Nurse Practitioner and Nursing Education concentrations. Graduate programs and courses are offered for specific student cohorts.

Other programs offered at Venango Campus include 11 certificates that can be completed in one year or less and a variety of continuing education courses and seminars.

Clarion University–Virtual Campus

Clarion University, combines its academic tradition of excellence with online educational technology to provide programs that are—ACCREDITED.ACCESSIBLE.ANYWHERE. Clarion has been offering classes off the Clarion Campus using a variety of technologies since 1996. There are currently several undergraduate degree and certificate programs available fully online. The courses required to support these degrees meet the same curricular and instructional standards and are taught by the same faculty as classes delivered on the Clarion Campus. As a result, the degree you earn online through the Virtual Campus offers the same quality and accreditation as a degree you would earn through the university's traditional on-campus program. All classes are delivered over the Internet and are designed to allow students flexibility to complete their course work at times convenient to them. Students also have access to extensive online resources including online library materials and databases.

Information on the availability of specific degrees online is indicated under each of the degree program areas. A list of current course offering and online undergraduate programs is available on the Web at www.clarion.edu/virtualcampus.



STUDENT and UNIVERSITY AFFAIRS

Harry E. Tripp, Vice President for Student and University Affairs

222 Egbert Hall
Telephone: 814-393-2351
E-mail address: htripp@clarion.edu
Website: www.clarion.edu/student

The Division of Student and University Affairs advances and complements the educational mission of the university through the collaborative efforts of five centers and the Department of Auxiliary Operations. The five centers include Advancement, Leadership and Involvement, Residence Life Services, Sports and Recreation and Student Development.

The division works collaboratively with members of the university community to support student personal, educational and professional growth by creating and fostering an integrated learning environment where civility, social responsibility, diversity and institutional loyalty are valued. The division strives to provide quality services, programs and facilities that advance a Clarion education as a common good, while setting the standard for accountability and assessment within the institution.

The Division of Student and University Affairs continues its affiliation with the Clarion University Foundation, Inc., Clarion University Alumni Association and Clarion Students' Association in support of fundraising, alumni relations and student organizations and activities.

Center for Advancement

Carol Roth, Assistant VP Advancement

224 Seifert-Mooney Center for Advancement
Telephone: 814-393-2572
E-mail address: croth@clarion.edu
Website: www.clarion.edu/advancement

The Center for Advancement operates within the Division of Student and University Affairs and is comprised of the offices of marketing and communication, sports information and printing services. Responsibilities lie in advancing the general interests of Clarion University while building a base of support that enriches and sustains the university.

The focus of the center lies in telling the story of our vibrant academic institution in its unique western Pennsylvania setting along with promoting strong collaborative relationships among internal and external constituencies. Audiences served include prospective and current students, parents, more than 48,000 alumni, faculty, staff, community partners, friends of the university and the region at large.

In accomplishing its mission, the Center for Advancement seeks the involvement of university-affiliated organizations including the Clarion University Foundation, Inc., and Clarion University Alumni Association.

Marketing and Communication

David Love, Director, Marketing and Communication

230 Ralston Hall

Telephone: 814-393-2334

E-mail address: dlove@clarion.edu

Website: www.clarion.edu/mktgcomm

The Office of Marketing and Communication promotes Clarion University through integrated marketing initiatives, which include advertising and public relations. Efforts are part of a branding strategy that shapes the image of the university as it reaches various constituents.

The office works with university leaders in establishing and promoting the official position of the university to media outlets and its various audiences, including current and prospective students, faculty and staff, alumni and friends and the community and government. The office also oversees the development of marketing and advertising campaigns created by outside agencies.

Positioning is also supported by the marketing and communication office through web design and development in accordance with established standards and guidelines.

In serving as the university's news bureau, the office releases information through various media outlets: print, radio and television; the university's website; Clarion and Beyond alumni magazine; and the electronic campus newsletter, Newswire. The department also assists in emergency communications and special projects.

Sports Information

Rich Herman, Director, Sports Information

225 Ralston Hall

Telephone: 814-393-2334

E-mail address: rherman@clarion.edu

Website: www.clariongoldeneagles.com

All official news releases and media relations relating to athletics are coordinated and issued through the Office of Sports Information. This office works closely with the athletic director and coaches and is responsible for the coordination of statistical reports required by the NCAA (National Collegiate Athletic Association) and PSAC (Pennsylvania State Athletic Conference). The university's athletics website is also maintained by this department.

Printing and Graphics Express Service (PAGES)

Brian DiFonzo, Director, Printing Services

Central Services

Telephone: 814-393-2679

E-mail address: bdifonzo@clarion.edu

Website: www.clarion.edu/PAGES

PAGES is responsible for the development and printing of official university publications and other print materials. The department operates a copy center and provides design and digital services. PAGES works closely with marketing and communication on the incorporation of the university brand into print projects. PAGES also offers specialized mailing services and other promotional items, including portfolios, shirts, etc.

Clarion University Foundation, Inc.

Michael Keefer, Chief Executive Officer

220 Seifert-Mooney Center for Advancement

Telephone: 814-393-2572

E-mail address: mkeefer@cuf-inc.org

Website: www.clarion.edu/foundation

The Clarion University Foundation, Inc., a Pennsylvania not-for-profit corporation founded in 1969, is charged with promoting the educational purposes of, or at the request of, Clarion University. The organization, further described as a tax-exempt charity by section 501(c)(3) of the Internal Revenue Code, has been designated by the council of trustees to receive and manage private sector gifts on behalf of Clarion University.

As charged, the foundation is responsible for coordinating all university program requests for financial support from the private sector. Campaigns for support include annual, capital, planned gifts and other special appeals. Sources of private support include alumni, employees, retirees, parents, students, friends, businesses, corporations and foundations.

The foundation board of directors, through its CEO, oversees the management and operation of the organization including distribution of resources, management of assets, student housing operations and personnel.

Clarion University Alumni Association, Inc.

Brooke Murray, Director of Alumni Relations and Annual Funds/Executive Director

103 Seifert-Mooney Center for Advancement

Telephone: 814-393-2572

E-mail address: bmurray@cuf-inc.org

Website: www.clarion.edu/alumni

An integral part of the foundation, the Clarion University Alumni Association is led by its board of directors (the voice of more than 48,000 living alumni) and executive director and supported by student Eagle Ambassadors. The association is actively involved in the efforts of the university and the Clarion University Foundation, Inc., in serving alumni, friends, parents and the university community at large. The office is involved

in attracting students, establishing a base of financial support, fostering lifelong affiliations with alumni (beginning with current students) and continuing in outreach programming to all alumni.

Center for Leadership and Involvement

Shawn Hoke, Director

251 James Gemmell Student Complex
Telephone: 814-393-2714
E-mail address: shoke@clarion.edu
Website: www.clarion.edu/cli

The Center for Leadership and Involvement is responsible for promoting community service opportunities to and tracking the service hours of the student body; working collaboratively with the Clarion Students' Association (CSA) on issues related to the student activity fee and recognized university organizations (RUOs); providing support and services to our minority student population; engaging our students in leadership development opportunities; ensuring that fun and entertaining programming and events occur for students; providing organizational advising services to Minority Student Services (MSS) Leadership Council, Student Senate, the University Activities Board and the fraternity and sorority community, and assistance to recognized student organizations (RSOs); and continuing to support the efforts of the Transitions program.

Fraternity and Sorority Affairs

Brian Hoover, Assistant Director (Interfraternity Council Adviser)

269 James Gemmell Student Complex
Telephone: 814-393-2356
E-mail Address: bhoover@clarion.edu

Kelly Ryan, Assistant Director (Panhellenic Council Adviser)

265 James Gemmell Student Complex
Telephone: 814-393-1688
E-mail address: kryan@clarion.edu
Website: www.clarion.edu/greeklife

The mission of the Fraternity and Sorority Affairs program is to provide support, programs and services for students affiliated with general fraternities and sororities, which help them to achieve their academic goals and aid in their personal growth and development. The efforts of the staff of the Center for Leadership & Involvement emphasize scholarship, service, leadership, involvement, diversity, community building, self-governance and lifelong membership, and challenge each undergraduate member to incorporate the ideals expressed in the ritual of their fraternity or sorority into their daily lives.

James Gemmell Student Complex

The James Gemmell Student Complex is the student center. It serves as a meeting and gathering place for our students, as well as the central location for campus organizations to hold events. The building is home to the University Book Center, the Gemmell Food Court (featuring Mondo Subs, Pazzelli's



Pizza, Big Smash Burgers, The Natural Chicken Sandwiches, Budget Bites and Outtakes), the Gemmell Grinds Coffee Shop, the Hershey's Ice Cream Creation Station, meeting rooms, the multi-purpose room, three racquetball courts and a television lounge.

Administrative offices located in the student center include: the Center for Leadership and Involvement, the Clarion Students' Association, Conference & Event Services, Transitions Services and the Pennsylvania State Employees Credit Union e-Center. Six student organizations also have offices in the student center, including: the Black Student Union, the Clarion Call student-run newspaper, the Interfraternity and Panhellenic councils, Interhall Council, Student Senate and the University Activities Board (UAB). An information desk is located on the second floor of the student center and serves as a central location to sign up for RSO trips and events, check out laptop computers and purchase tickets for university activities, such as the CampusFest concert.

Leadership and Community Service

Kelly Ryan, Assistant Director

265 James Gemmell Student Complex
Telephone: 814-393-1688
E-mail address: kryan@clarion.edu
Website: www.clarion.edu/leadserve

The Leadership and Community Service program provides leadership development training programs and community service opportunities for students. The staff coordinates the Student Leader Empowerment Program (SLEP); the Mary Walter Leadership Development Speakers Series; the Emerging Leaders Program; the Leaders in Action Conference; the Low Ropes Adventure Course; and the fall and spring community service days. The staff also conducts workshops and retreats focusing on team building, communication, visioning and goal setting when requested by RSOs.

University Activities Board

Brian Hoover, Assistant Director

277 James Gemmell Student Complex

Telephone: 814-393-2356

E-mail address: bhoover@clarion.edu

Website: www.clarion.edu/uab

The University Activities Board (UAB) provides a wide range of programs and leadership opportunities for Clarion University students. UAB plans approximately 150 programs each year and organizes a majority of the Every Friday and Saturday Night (EFSN) weekend programs. Big-name concerts, lecture experiences and numerous other programs are organized by a variety of UAB committees such as Arts, CampusFest, Collaboration/Community Service, Gemmell Activities, Lecture, Multicultural, Recreation, Special Events and Weekend Programming.

The UAB adviser also provides leadership for the Programming Advisory Board (PAB). PAB meets bi-weekly each semester to discuss collaborative programming efforts with all interested students and staff members. PAB also develops the EFSN program schedule, which has a social program in the James Gemmell Student Complex every Friday through Saturday night. These programs are sponsored and supported by a variety of student organizations.

Center for Residence Life Services

Michelle Kealey, Director of Residence Life Services

230 Egbert Hall

Telephone: 814-393-1806

E-mail address: reslife@clarion.edu

Website: www.clarion.edu/reslife

Residence Life

Clarion University houses students in residence hall suites, traditional residence halls and at Reinhard Villages' apartment-style living. Combined, we provide approximately 2,100 beds for Clarion students. Transfer students with fewer than 24 earned credits and first-time-in-college students whose permanent address is greater than 30 miles from campus are required to live in university-affiliated housing. A student may choose to live in traditional residence halls, new residence hall suites or in an apartment at Reinhard Villages based upon availability at the time of application. Our website and online application has the most up-to-date information about building availability at the time of your application.

All of our housing provides a cross-section of students representing most aspects of a highly diverse student body. Housing assignments are made without regard to race, religion, color, sexual orientation, ancestry or national origin. Hall and roommate preferences are taken into consideration when making assignments and are honored whenever possible. Housing assignments and roommate information are mailed mid-July for students requesting housing in August and mid-December/early January for students requesting housing in January.

Traditional rooms and bedrooms in the suites are furnished with beds, desks, chairs, dressers and closets or wardrobes.

Additionally, the common area of the suites provides a sofa, chair and coffee and end tables. Apartments at Reinhard Villages are completely furnished and include a washer/dryer, dishwasher and garbage disposal. Students should plan to furnish linens, blankets, pillows, bedspreads, desk lamps, a telephone and other personal items. Local telephone service, cable and high-speed Internet are included in the room fees. Residence halls offer coin-/Eagle Dollar-operated laundry facilities and vending machines, television and study lounges. Kitchen facilities and/or microwave ovens are available for student use.

Graduate managers and undergraduate community assistants, under the guidance and supervision of professional residence life coordinators, staff the residence halls. The campus is served by a 24-hour service desk located in the lobby of Givan Hall. The desk is open 24 hours a day, seven days a week, when school is in session. The desk serves many roles for residence hall students, including but not limited to: primary contact point for the residence hall staff, package pick-up, computer labs, equipment sign-out and temporary key sign-out.

A room may be occupied only by the students to whom it is assigned, and the agreement may not be transferred. The residence hall agreement is in effect for the entire academic year, unless otherwise specified. The only grounds for release from the agreement are withdrawal from the university, graduation or a change in student teaching or internship assignment.

Residence hall applications must be submitted annually, and returning students will be notified of the availability of the online application. Housing information and online applications will be made available to new students once they have committed to attending Clarion University through their paid deposit.

Fees for housing and food services are due and payable at the same time as other university tuition and fees. Refunds cannot be made unless the student withdraws from the university or is granted an agreement release. Refund policies for housing and food service follow the university refund schedule.

Campus residence halls are closed during university vacations and between semesters.

Judicial and Mediation Services

Matthew G. Shaffer, Coordinator

204 Egbert Hall

Telephone: 814-393-1918

E-mail address: mshaffer@clarion.edu

Website: www.clarion.edu/judicial

The Office of Judicial and Mediation Services promotes responsible citizenship by protecting student rights and maintaining the principles outlined in the Student Rights, Regulations, and Procedures Online Handbook. The office administers campus disciplinary procedures, seeks to maintain a positive living and learning environment and encourages the building of a respectful and inclusive community.

The office also serves as a resource to the university community regarding conflict management and resolution by providing services that promote the development of critical life skills. A mediation service is available to assist students in resolving interpersonal conflict.

Center for Sports and Recreation

David Katis, Director of Intercollegiate Athletics/

Executive Director

112 Tippin Gymnasium

Telephone: 814-393-1997

E-mail address: dkatis@clarion.edu

Website: www.clariongoldeneagles.com

The focus of the Center for Sports and Recreation is the development of students through intercollegiate and recreational sports and fitness promotion for all students. Recreational programs such as intramurals are also under the supervision of the center.

Intercollegiate Athletics

Website: www.clariongoldeneagles.com

Intercollegiate athletic competition plays an important role in the lives of Clarion students. Clarion University is affiliated with the National Collegiate Athletic Association (Division II), Pennsylvania State Athletic Conference and the Eastern Wrestling League. The present athletics program includes six men's and 10 women's varsity programs. The men's programs are baseball, basketball, football, golf, swimming and diving and Division I wrestling. The women's programs are basketball, cross-country, golf, soccer, softball, swimming and diving, tennis, indoor and outdoor track and field and volleyball.

Facilities for intercollegiate athletics include Memorial Stadium and the Waldo S. Tippin Gymnasium-Natatorium. The stadium seats approximately 6,500 spectators. The football field is surrounded by an all-weather track. The facility also includes a baseball field, softball field, soccer field, practice football fields and parking areas. The gymnasium-natatorium, seating approximately 4,000 spectators, is used for both physical education and athletic activities. A weight room, located in the gym, is used for intercollegiate athletics and physical education classes.

Intramurals, Recreation, Fitness and Club Sports Program

Douglas Knepp, Director of Intramurals, Recreation, Fitness and Club Sports

106 Student Recreation Center

Telephone: 814-393-1667

E-mail address: dknep@clarion.edu

Website: www.clarion.edu/clubsports or
www.clarion.edu/intramurals

Club sports are administered by the Office of Intramurals, Recreation, Fitness and Club Sports located in the Student Recreation Center. The designation of club sport is given to recognized student organizations (RSOs) choosing to

participate in athletic competition with outside organizations in a non-varsity status. To obtain club-sport status, an organization must meet stipulations set forth by the Intramural, Recreation, and Club Sport (IRCS) Committee. Club sports operate on a year-to-year basis contingent upon student interest. Examples of club-sport programs at Clarion are men's and women's rugby, equestrian, ultimate Frisbee, roller hockey, men's volleyball and soccer.

Intramural and recreational programs are provided for students through student activity fees allocated by Student Senate. Programs are planned and supervised by the Office of Intramurals, Recreation, Fitness and Club Sports. Intramural competition is available for more than 50 activities, including flag football, soccer, volleyball, chess, bowling, table tennis, basketball, wrestling, badminton, billiards, swimming, softball, in-line hockey, water basketball, golf and racquetball. The program is housed in the Student Recreation Center and many of the intramural events are held in the facility. Ongoing fitness counseling is available, as well as instruction on the use of the strength and cardio equipment. The program also offers a fitness component intended to help students develop and maintain a healthy and physically fit body through strength-training programs, aerobics and body fat percentage screening tests.

Student Recreation Center

Lori Sabatose, Manager

104 Student Recreation Center

Telephone: 814-393-1667

E-mail address: lsabatose@clarion.edu

Website: www.clarion.edu/reccenter

The student fee-funded Student Recreation Center facility houses three multi-purpose courts that may be used for basketball, volleyball, tennis, soccer, floor hockey or badminton. It also contains a four-lane running/walking track, a 32-foot-by-25-foot climbing wall with seven belay stations, a stretching area, cardiovascular area and a 4,700-square-foot weight room. Equipment includes elliptical cross trainers with personal viewing screens, steppers, treadmills, Expresso fitness bikes with personal viewing screens, stationary bicycles and a rowing machine. A variety of daily group fitness and aerobic classes are offered free to students. A small fee is charged to the campus community for these activities.

The weight room combines free weights, plate-loaded stations and variable-resistance, weight-training machines. Outdoor recreation equipment, such as camping gear, bicycles, cross-country skis and roller blades may be checked out for a minimal fee. In order to accommodate student needs, the SRC has indoor equipment such as basketballs, volleyballs, footballs, dodge balls, soccer balls, playground balls, tennis racquets and balls, badminton equipment, ping pong equipment, Frisbees, hockey equipment, boxing gloves, jump ropes and weight belts.

The center also contains men's and women's locker/shower rooms, a multi-use room, a meeting room and office space for the recreation center director and the intramural, recreation and fitness director. A majority of the programs sponsored by

the Office of Intramurals, Recreation, Fitness and Club Sports are held in the Student Recreation Center. All students enrolled at the Clarion Campus that have paid a recreation center fee are admitted free to the facility and have use of all equipment by simply presenting a valid Clarion University ID card. This facility is student run and operated. Students do not need to pay an extra fee to use the climbing wall. Membership is available to non-students.

Refer to website for hours of operation.

Center for Student Development

Susan Bornak, Dean of Student Development

118 Egbert Hall

Telephone: 814-393-1616

E-mail address: sbornak@clarion.edu

Website: www.clarion.edu/studentdev

The Center for Student Development creates opportunities for personal, intellectual and career development, modifies or removes barriers to learning and promotes social, civic and educational responsibility.

Career Services Center

Diana Anderson-Brush, Interim Director

114 Egbert Hall

Telephone: 814-393-2323

E-mail address: dbrush@clarion.edu

Website: www.clarion.edu/career

Clarion University offers a number of services to assist students with their career, educational and employment plans. The Career Services Center works individually with students and through programs and classroom presentations to assist them in developing life-long career planning and job search skills. Students can obtain career and job search information from its career resource room, office publications and website. In addition, staff members use several listservs and an e-newsletter to communicate with students and provide career information and advice.

The Career Services Center provides students with information regarding experiential education opportunities related to their personal interests, course requirements or career exploration needs. The center serves as a clearinghouse for opportunities related to part-time jobs and internships. Staff members administer the Off-Campus Community Service Federal Work-Study program and coordinate the Experience Expo event.

The Career Services Center offers a number of resources for students as they prepare to enter the workforce. Students can develop job-search skills by participating in the center's professional development seminars, resume clinic, and mock interview program, and by meeting with a staff member to organize job-application materials. The center also helps students make connections with employers by arranging on-campus interviews, offering an online career services registration and resume posting service, providing a resume

search for employers, coordinating a database of employment opportunities and sponsoring a number of career events throughout the academic year.



Counseling Services

Mark Lepore, Clinical Supervisor

148 Egbert Hall

Telephone: 814-393-2255

E-mail address: mlepore@clarion.edu

Website: www.clarion.edu/counseling

The Department of Counseling Services offers short-term episodic individual, couple and group counseling to all students at no charge. Counseling Services provides professional help with personal, social and career concerns including e-Discover, a web-based, career-planning program.

Students may request counseling on their own initiative or may be referred by faculty, staff or other students. In keeping with accepted professional practice, counseling contacts are strictly confidential unless there is a clear, immediate threat to one's self or others.

Appointments can be made by calling the counseling center at 814-393-2255 or by stopping by the office in 148 Egbert Hall. Counseling services are available Monday through Friday during the fall and spring semesters. There are limited hours during the summer months. The Department of Counseling Services is accredited by the International Association of Counseling Services, Inc.

Health Promotions

James McGee, Coordinator of Health Promotions
134 Keeling Health Center
Telephone: 814-393-1949
E-mail address: jmcgee@clarion.edu
Website: www.clarion.edu/wellness

The Office of Health Promotions, located in the Keeling Health Center, delivers health and wellness information to students across the campus. Through presentations, wellness programs and fitness activities, students have opportunities to learn about the importance of healthy choices and healthy living.

The office supports Healthy Campus 2020 which serves as a foundation for developing and implementing programs on topics such as alcohol awareness, women's health, safe sex/STD, tobacco, mental wellness and nutrition/exercise. It also coordinates the CHAMPS Life Skills Program and conducts presentations for student athletes.

The Office of Health Promotions collaborates with the Office of Judicial and Mediation Services and oversees mandated drug and alcohol programs for students violating university policy.

Keeling Health Center

Darlene Hartle, Nursing Supervisor

Keeling Health Center
Telephone: 814-393-2121
E-mail address: dhartle@clarion.edu
Website: www.clarion.edu/healthservices

Keeling Health Center, accredited by the Accreditation Association for Ambulatory Health Centers (AAAHC), provides health services and wellness promotion to the student community of Clarion University. The health center is located at the northwest corner of the campus near Givan Hall. A highly credentialed staff, including contracted physicians, certified registered nurse practitioners and registered nurses certified in college health, provide specialized student health services. Operating hours are 8:30 a.m. to 4:45 p.m., Monday through Friday. After-hours and emergency services are available from a variety of community providers.

The services of the health center are similar to those provided in a physician's office. Specific services include: physical examinations, immunizations, allergy injections, medication and prescriptions, pregnancy testing, treatment of acute and chronic illnesses and injuries and referral to appropriate community resources. Proper immunization is highly recommended prior to university entrance.

Pennsylvania Senate Bill 955, which was passed into law on June 28, 2002, mandates that all university students living in residence halls be immunized against meningitis or sign an informed declination statement. The American College Health Association also supports the meningitis vaccine.

A small co-payment is assessed for each visit. In addition, there may be charges for medications or procedures associated with the visit. Students are strongly encouraged to contact their primary insurance carrier to determine the conditions and limitations, if any, on medical treatment away from home.

Health Insurance

The health services fee includes basic provider services within the Keeling Health Center. A small co-payment is assessed for each visit. Charges for laboratory, X-ray, outpatient or inpatient services at other facilities, and medications are not covered and are the responsibility of the individual student. Health insurance coverage is strongly encouraged prior to enrollment at Clarion University. In an attempt to offer students an affordable health insurance option, Clarion University has collaborated with 10 other universities in the Pennsylvania State System of Higher Education to offer an economical and comprehensive insurance policy to students not covered by their parents' policy. Consolidated Health Plans (www.consolidatedhealthplan.com) has been selected as the insurance provider and students may choose from a variety of options.

Parents who plan to keep a son or daughter on family insurance plans should contact their insurance provider to determine the effects of university entrance on dependent coverage, particularly under managed care plans.

University policy requires students have medical insurance coverage to be eligible for participation in university-sanctioned, sponsored and/or approved activities, including intercollegiate sports. The assumption is students participating in such activities are covered by medical insurance and proof of coverage can be produced upon the university's request. Students interested in obtaining insurance from Consolidated Health Plans should contact the nursing supervisor, 814-393-2121.

Athletic Training, Sports, and Wellness (ATSW)

Douglas Knepp, Chair

106 Student Recreation Center
Telephone: 814-393-1667
E-mail address: dknepp@clarion.edu
Website: www.clarion.edu/athletic-training
www.clarion.edu/sportsmgmt
www.clarion.edu/coach (for Athletic Coaching Program)

Assistant Professors: Fyock, Katis, Knepp, Snodgrass, Thornton
Instructors: Chesterfield, Brennan-Caplan

The Athletic Training, Sports, and Wellness (ATSW) programs are designed to give the student a solid foundation for success in this expanding field. Graduates work as athletic trainers, administrators, or directors at fitness clubs. They manage sports teams, run municipal recreation departments, and serve as coaches. Students can choose from a variety of options including either a bachelor's program in athletic training, a liberal studies degree with concentrations in athletic coaching or sports management, and a minor in sports management, or athletic coaching (which includes a National Level III Certification). Check specific Websites for details, updates, and requirements for each program.

Athletic Training Education Program

Athletic Training Profession

Certified athletic trainers (ATC) are board certified health care professionals who specialize in preventing, recognizing, managing and rehabilitating injuries that result from physical activity. As part of a complete health care team, the certified athletic trainer works under the direction of a licensed physician and in cooperation with other health care professionals, athletics administrators, coaches, and parents. Certified athletic trainers can be found in various work settings such as secondary schools, colleges and universities, professional sports, hospitals, clinics, physician offices, sports medicine clinics, military and law enforcement, industrial and commercial and the performing arts.

Athletic Training Program

Through a collaborative agreement with California University of Pennsylvania, Clarion University students can earn a B.S. degree in athletic training from California University. Concurrently, students are able to take a series of general education courses allowing them the opportunity to complete a B.S. degree in liberal studies with a concentration in athletic training from Clarion University.

Admission into the Athletic Training Program

During the first year, students planning to apply for admission into the Athletic Training Program must complete specific courses, including Anatomy & Physiology I and II, General Psychology, Health Education and Introduction to Athletic Training. Students must obtain a QPA of 3.0 to be eligible to apply for the Athletic Training Program. During the freshman year, pre-professional students must also complete a pre-professional observation experience. These observation experiences must take place on the Clarion Campus during practices and games with Clarion's varsity teams.

Curriculum

The Athletic Training Program consists of 120 credits and can be completed in four years. Of the 72 credits, which must be completed in the arts and sciences, all but 22 are encompassed by the core classes in Athletic Training. These additional 22 credits can be comprised of any arts and sciences courses. The 48 credits required in General Education are structured to fulfill the requirements of both the B.S. in Liberal Studies at Clarion University and the B.S. in Athletic Training at California University of Pennsylvania.

ATHLETIC TRAINING REQUIREMENTS

First Semester

BIOL 258: Anatomy & Physiology I.....	3
ENG 111: Writing II.....	3
CMST 113: Public Speaking.....	3
PSY 211: General Psychology.....	3
Mathematics requirement.....	3
Total	15

Second Semester

BIOL 259: Anatomy & Physiology II.....	3
ATSW 150: Introduction to Athletic Training.....	3
HPE 111: Health Education.....	2

HPE 186: Personal Performance.....	1
ENG 130: Literary Experience <i>or</i>	
ENG 200: Composition and Literature <i>or</i>	
ENG 307: Business Writing.....	3
CIS 110: Intro to Computer Info. Systems <i>or</i>	
CIS 217: Applications of Microcomputers.....	3
Total	15

Third Semester

ATE 204: Athletic Training Clinical Ed. I.....	2
ATE 225: Evaluation Techniques I.....	4
HSC 275: Functional Kinesiology.....	3
ATSW 300: Emergency Medical Technician.....	4
General education elective.....	3
Total	16

Fourth Semester

ATE 204: Athletic Training Clinical Ed. I.....	2
AE 265: Evaluative Techniques II.....	4
HSC 290: Therapeutic Modality and Lab.....	4
Soc 211: Principles of Sociology.....	3
General education elective.....	3
Total	16

Fifth Semester

ATE 305: Athletic Training Clinical Ed. II.....	2
ATE 330: Therapeutic Exercise and Lab.....	4
ATE 425: Admin. Strategies in Ath. Training.....	2
Science Elective.....	3
Social/Behavioral science elective.....	3
Total	14

Sixth Semester

ATE 305: Athletic Training Clinical Ed II.....	2
ATE 315: General Medical Assessment.....	3
HSC 325: Physiology of Exercise.....	3
FIT 400: Int. Sport Performance Training.....	3
Humanities elective.....	3
Total	14

Seventh Semester

ATE 400: Ortho. Evaluations in Sport Medicine.....	1
ATE 405: Athletic Training Clinical Ed. III.....	2
ATE 440: Pharmacology.....	2
ATE 460: Sports Medicine Research.....	3
Humanities elective.....	3
Arts and science elective.....	3
Total	14

Eighth Semester

ATE 400: Ortho. Evaluations in Sport Medicine.....	1
ATE 405: Athletic Training Clinical Ed. III.....	2
Arts and sciences electives.....	12
Total	15

Athletic Coaching Education Program

The athletic coaching verification program and the athletic coaching minor are specialized curricula established for individuals who intend to coach in scholastic programs, youth sport or community recreation programs. It is not a degree program in physical education, but rather a specialized curriculum designed to provide those interested in coaching with a fundamental, educationally sound basis from which to pursue their goals. The program is designed for all students. Non-education majors have found the program to be an excellent alternative to their areas of concentration. The minimum requirement for the Athletic Coaching Program (Verification) is 13 credits, and 18 credits are required for successful completion of the Nationally Accredited Level III Athletic Coaching Certification (minor). The B.S. Liberal Studies degree is also available with a concentration in athletic coaching.

Athletic Coaching Verification, Minor, National Level III Certification, and Concentration

Athletic Coaching (verification) requirements are 13 credits.

Athletic Coaching (minor) and nationally accredited Level III certification requirements are 18 credits.

B.S. in liberal studies with concentration in athletic coaching requires 29 credits in ATSW coaching courses.

ATHLETIC COACHING (VERIFICATION)13 credits

This option is designed for those students wishing to have athletic coaching as their area of emphasis.

Required:

ATSW 406	Athletic Injuries: Prevention, Recognition, and Evaluation	4
ATSW 407	Physiological Foundations of Coaching	3
ATSW 408	Principles and Problems of Athletic Coaching	3
ATSW 409	Kinesiological Foundations of Coaching	3

MINOR IN ATHLETIC COACHING AND NATIONAL LEVEL III CERTIFICATION IN ATHLETIC COACHING 18 credits

Must include the courses above for the athletic coaching verification plus one of the following theory and techniques courses:

ATSW 350	Theory and Techniques of Coaching	2
ATSW 351	Theory and Techniques of Coaching Basketball	2
ATSW 352	Theory and Techniques of Coaching Baseball and Softball	2
ATSW 354	Theory and Techniques of Coaching Football	2

Required Athletic Coaching Field Experience:

COOP 444	Athletic Coaching Internship	3
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B.S. LIBERAL STUDIES WITH CONCENTRATION IN ATHLETIC COACHING.

Must include the courses listed above for the athletic coaching minor plus one additional theory and techniques course and:

ATSW 333	Fitness for Wellness	3
ATSW 334	Food, Fitness, and Weight Management.....	3
ATSW 440	Sports Facility and Event Management.....	3

Sports Management Program

The sports management minor is a specialized curriculum designed to provide students with the knowledge and skills specifically applicable to sports and recreation organizations. With the emphasis on a health-conscious society today, there is a growing need to have individuals capable of efficiently and effectively managing a variety of sport facilities ranging from The Y to fitness clubs. Furthermore, Clarion has made it possible to complete the Sports Management Program as a supplement to the choice of an academic major in any field. Students pursuing a sports management minor at Clarion University will likely seek entry-level jobs in the field or use the minor as a stepping-stone to graduate programs in sports management. Additionally, the skills and knowledge acquired in the program are applicable in many other industries. The minimum requirements for the sports management minor are 21 credits. The B.S. Liberal Studies degree is also available with a concentration in sports management. Minimum requirements for the concentration in sports management include the courses indicated for the minor plus the choice of 300 level electives to equal 39 credits for the right side of the degree check sheet. Please consult your advisor and/or check sheet for specific requirements.

SPORTS MANAGEMENT MINOR21 credits

Required:

ACTG 201	Intro to Accounting Survey.....	3
ECON 175	Economics of Free Enterprise and Public Policy	3
SOC 410	Sociology of Sports	3
or		
ATSW 380	Fundamentals of Sport in American Society	3
ATSW 408	Principles and Problems of Athletic Coaching.....	3
ATSW/		
MGMT 430	Sports Management.....	3
ATSW 440	Sports Facility and Event Management.....	3
COOP 447	Co-op Experience	3

B.S. LIBERAL STUDIES WITH CONCENTRATION IN SPORTS MANAGEMENT

A minimum of 39 credits on the right side of the check sheet must be at or above the 300 level.

ATSW 370	Women in Sport.....	3
ATSW 380	Fundamentals of Sport in American Society	3
ATSW/		
MGMT 430	Sports Management.....	3
ATSW 440	Sports Facility and Event Management.....	3
MGMT 320	Management Theory and Practice	3
COOP 447	Co-op Experience	3-12

Activity and Recreation Courses (Personal Performance)

ATSW 102: CREDIT FOR ATHLETIC PARTICIPATION

1 s.h.

The student athlete must complete the full season of athletic participation in good standing with the student's varsity athletic program. Eligibility to register for this credit is not permitted until a student has completed one full season of team participation. Fall and Spring, annually .

Athletic Training Education Courses

ATSW 150: INTRO TO ATHLETIC TRAINING

3 s.h.

Students learn about common injuries and illnesses associated with athletic populations, including introduction, rehabilitation, and treatment approaches for athletic injuries. Also addresses prevention and implications of athletic injuries. Spring, annually.

ATSW 300 : EMERGENCY MEDICAL TECHNICIAN

4 s.h.

Students complete all requirements to sit for Pennsylvania State EMT Certification exam. Fall, annually.

COOP 345: Co-Op ATHLETIC TRAINING

3-6 s.h.

COOP 445: INTERNSHIP ATHLETIC TRAINING

1-12 s.h.

Athletic Coaching Education Courses

ATSW 406:	<i>ATHLETIC INJURIES: PREVENTION, RECOGNITION, AND EVALUATION</i>	4 s.h.
Presents the latest information on prevention, recognition, and evaluation of athletic injuries. Students learn to coordinate appropriate emergency care as well as establish a professional working relationship with the qualified medical personnel who assist an injured athlete's recovery. Students earn an American Red Cross AED/CPR certification upon successful completion of the course. Fall, annually.		
ATSW 407:	<i>PHYSIOLOGICAL FOUNDATIONS OF COACHING</i>	3 s.h.
Study of the basic scientific principles of physiology and how they can be applied to conditioning programs for the athlete. Covers all phases of physical training, along with evaluation of modern training devices. Spring, annually.		
ATSW 408:	<i>PRINCIPLES AND PROBLEMS OF ATHLETIC COACHING</i>	3 s.h.
A study of modern techniques and practices used in the organizational procedure of athletic programs. Covers major problem areas such as practice and game organization, purchase and care of equipment, budget and finances, public relations, legal liability, drug abuse, and sports psychology. Analyzes modern trends and issues in athletics as well as various philosophical views of athletics as a part of the educational curriculum. Fall, annually.		
ATSW 409:	<i>KINESIOLOGICAL FOUNDATIONS OF COACHING</i>	3 s.h.
Helps coaches increase their understanding of basic scientific information concerning athletic movement by utilizing the conceptual approach. Examines three main areas of study: applied anatomy, the production of motion, and application. Applies scientific principles to athletic skills to aid in the coaching and teaching of skills. Spring, annually.		
ATSW 350, 351, 352, 354:	<i>THEORY AND TECHNIQUES OF COACHING</i>	2 s.h.
Examines theories and techniques of coaching specific sports. Covers rules and regulations, fundamentals, organizational principles, specific conditioning programs, scouting, technical tactics, and other topics.		
ATSW 350:	<i>THEORY AND TECHNIQUES OF COACHING</i>	2 s.h.
Fall and Spring, annually.		
ATSW 351:	<i>THEORY AND TECHNIQUES OF COACHING BASKETBALL</i>	2 s.h.
Fall, even numbered years.		
ATSW 352:	<i>THEORY AND TECHNIQUES OF COACHING BASEBALL AND SOFTBALL</i>	2 s.h.
Fall, odd numbered years.		
ATSW 354:	<i>THEORY AND TECHNIQUES OF COACHING FOOTBALL</i>	2 s.h.
Fall, odd numbered years.		
COOP 444:	<i>ATHLETIC COACHING INTERNSHIP</i>	1-12 s.h.

Sports Management Education Courses

ATSW 333:	<i>FITNESS FOR WELLNESS</i>	3 s.h.
Provides students with knowledge, strategies, and skills in health-related fitness and stress management. Focuses on practical experience in exercise design and assessment and psychophysiological regulations. Emphasizes recognition, identification, and remediation of pitfalls to adherence. Prerequisite: HPE 111. Fall, annually.		
ATSW 334:	<i>FOOD, FITNESS, AND WEIGHT MANAGEMENT</i>	3
Provides students with knowledge, strategies, and skills regarding the management of one's diet both qualitatively and quantitatively. Emphasizes the skills of personal dietary design and assessment for weight management and optimum health. Gives attention to the dietary needs and problems of special populations. Prerequisite: HPE 111. Spring, annually.		
ATSW 370:	<i>WOMEN IN SPORT</i>	3 s.h.
Provides students with a comprehensive, multidisciplinary analysis of the problems, patterns, and processes associated with the involvement of women in sports. Fall, annually.		
ATSW 380:	<i>FUNDAMENTALS OF SPORT IN AMERICAN SOCIETY</i>	3 s.h.
Covers the role of sports in American society including the examination of the fundamental changes in the organization, rules, management, finances, and ethos of sport. Also examines the social, cultural, economical, philosophical, and anthropological foundations that have shaped American sports. Spring, annually.		
ATSW 408:	<i>PRINCIPLES AND PROBLEMS OF ATHLETIC COACHING</i>	3 s.h.
A study of modern techniques and practices used in the organizational procedure of athletic programs. Covers major problem areas such as practice and game organization, purchase and care of equipment, budget and finances, public relations, legal liability, drug abuse, and sports psychology. Analyzes modern trends and issues in athletics as well as various philosophical views of athletics as a part of the educational curriculum. Fall, annually.		
ATSW/MGMT 430:	<i>SPORTS MANAGEMENT</i>	3 s.h.
Provides students with an understanding of how the principles and concepts of management theory can be applied to sports administration. Prerequisite: MGMT 320 or permission of instructor. Fall, annually.		
ATSW 440:	<i>SPORTS FACILITY AND EVENT MANAGEMENT</i>	3 s.h.
Designed to assist the sport management student in acquiring necessary knowledge and skill needed to manage a sport facility and to plan a variety of sports events and programs. Spring, annually.		
COOP 447:	<i>SPORTS MANAGEMENT CO-OP EXPERIENCE</i>	3 s.h.

Department of Auxiliary Operations

G. Chad Thomas, Director of Auxiliary Operations

206 Egbert Hall

Telephone: 814-393-1859

E-mail address: cthomas@clarion.edu

Website: www.clarion.edu/events

The Department of Auxiliary Operations supports the daily functions of the centers within the Division of Student and University Affairs. This area coordinates the maintenance, housekeeping and renovation of all the auxiliary buildings including traditional residence halls, suite-style residence halls, the Student Recreation Center, James Gemmell Student Complex and Eagle Commons dining facility. This area also oversees the contract for all dining services on campus and includes the Office of Conference and Event Services.

Conference and Event Services

Carolyn Nick, Event Scheduler

Carl Callenburg, Auditoria Manager

Telephone: 814-393-2714

E-mail address: spacerequest@clarion.edu

Website: www.clarion.edu/events

The Office of Conference and Event Services schedules campus event space for non-academic events. The office assists recognized student organizations and administrative offices with the planning and coordination of their events and also contracts with external groups for camps and conferences. The space request process is handled online through the website.

Other Student-Related Services

University Libraries

Terry S. Latour, Ph.D., Dean of University Libraries

125 Carlson Library Building

Telephone: 814-393-2343

E-mail address: tlatour@clarion.edu

Website: www.clarion.edu/library

Assistant Professors/Librarians: Chen, Clemente, Gamaluddin, Glotfelty, Johnson, Martin, Stempeck

Instructor/Librarian: M. Buchanan, Cheresnowski

Carlson Library on the Clarion Campus and Suhr Library on the Venango Campus have combined collections of more than 1.7 million items in various formats, including books, e-books, microforms, journals, e-journals, media, streaming video, and electronic databases. Materials not held by the two libraries may be accessed through interlibrary loan services offered at both libraries or directly online through the libraries' Webpage. The libraries are committed to providing excellent service to users. Qualified library faculty and staff are available in the libraries' public service areas and via phone, chat, and e-mail to assist users in locating information, satisfying research needs, and effectively using instructional



technologies. Library faculty also provide instruction on general library use and on research resources and strategies which are discipline specific. The libraries' Webpage (www.clarion.edu/library) provides a gateway to scholarly resources including services which provide full-text access to thousands of academic journals and services for distance learners.

The mission of the Clarion University Libraries is to:

- assist university undergraduate and graduate students, faculty, staff, and administration in conveniently locating and accessing the university's information resources and those of other sources;
- develop and provide timely and responsive services, programs, and tools that facilitate translation of information into knowledge and support research, scholarship, teaching, and learning;
- build, select, and preserve, in cooperation with university faculty, a collection of information resources commensurate with the current and anticipated discipline needs of the university's instructional programs and supportive of teaching and learning processes;
- contribute to progress of the university and the profession; and
- participate in addressing the information resource needs of local and rural communities in Pennsylvania.

Carlson Library on the Clarion Campus is a state-of-the-art facility. Extensive connectivity to the campus network and the Internet is provided through building-wide wireless and standard data networks. There are four computer laboratories with PCs, Macs, and printers available for student use. Laptop computers are available for use in the library. The Carlson Library building is home to the university's Center for Academic Excellence as well as the University Art Gallery. The Department of Library Science, a department in the university's College of Education and Human Services, has its offices, classrooms, and computer laboratory in the facility.

Suhr Library on the Venango Campus provides an inviting research and study environment. It is a wireless zone containing a computer lab and providing laptop computers for both library and off-site use. Suhr Library houses the Barbara Morgan Harvey Center for the Study of Oil Heritage, which sponsors a range of activities and contains primary source information on the region.

Music Program

Department of Music

Stephen Johnson, Ph.D., Chair

221 Marwick-Boyd Fine Arts Center

Telephone: 814-393-2287

E-mail address: stjohanson@clarion.edu

Music ensembles are available to all members of the Clarion University community.

- **Brass Ensemble** offers members the opportunity to study and perform chamber music for brass instruments. Repertoire is varied, with a concentration on early music and music of the 20th century. Membership is by audition.
- **Concert Choir** offers all members of the university community who enjoy and appreciate choral music the opportunity to sing large choral ensemble repertoire from the Renaissance to the 20th century. Audition not required.
- **Jazz Band** performs representative works for jazz band, with an emphasis on recent trends in composition and arranging. Membership is by audition.
- **Chamber Singers** is a group of approximately 20 members who perform significant works from the choral chamber repertoire. Membership is by audition.
- **Marching Band** repertoire ranges from classics to contemporary to jazz. The Golden Eagles Marching Band appears at all home football games, headlines regional marching festivals, and leads the annual Autumn Leaf Festival Parade. Audition not required.
- **Percussion Ensemble** offers members the opportunity to study and perform chamber music for percussion instruments, including contemporary works, transcriptions of early music, and music of various cultures. Membership is by audition.
- **String Ensemble** provides members the opportunity to perform chamber works for strings. Membership is by audition.
- **Symphonic Band** is an ensemble that performs representative works for band drawn from traditional and contemporary literature. Audition not required.
- **Symphony Orchestra** brings together string and wind players performing orchestral literature. Membership is by audition.
- **Wind Ensemble** provides wind and percussion players the opportunity to perform significant wind literature from the Renaissance to the 20th century. Membership is by audition.
- **Woodwind Ensemble** offers members the opportunity to perform chamber literature for woodwind instruments. Membership is by audition.

Dramatic Organizations

Department of Theatre

Robert G. Levy, M.F.A., Chair

149 Marwick-Boyd Fine Arts Building

Telephone: 814-393-2283

Website: www.clarion.edu/theatre

ALPHA PSI OMEGA is a national honorary dramatics fraternity. This organization attempts to further the student's knowledge of and involvement with theatre. The chapter sponsors the Alpha Psi Omega memorial scholarship fund which grants theatre awards to deserving students.

UNIVERSITY THEATRE, the campus dramatic organization, is open to all students interested in gaining experience in performance and technical aspects of theatre. Students are welcome to participate in the four major productions, student-directed plays, and the Summer Drama Workshop.

Debate

Department of Communication

Myrna Kuehn, Ph.D., Chair

Telephone: 814-393-2284

E-mail address: kuehn@clarion.edu

Website: www.clarion.edu/debate

SPEECH AND DEBATE TEAM is open to any student interested in competitive speaking events. Members compete in persuasive, informative, humorous, extemporaneous, and impromptu speaking as well as oral interpretation. Debaters argue various topics and compete in parliamentary and policy debate. Members of the Speech and Debate Team can compete in on-campus events, public debates, and travel to regional and national tournaments hosted by other colleges and universities.

Parking and Automobile Regulations

All provisions of the Vehicle Code of the Commonwealth of Pennsylvania as supplemented by parking regulations issued by the chancellor, Pennsylvania State System of Higher Education, and Clarion University, will be strictly enforced on the Clarion University Campus. Authority for such enforcement rests with the director of Public Safety. People who fail to pay fines will be reported to the district magistrate, and, upon conviction will be subject to penalties provided by law.

All people who possess, maintain, or operate a motor vehicle on campus are required to register the vehicle with the Department of Public Safety. Registering a vehicle does not guarantee a parking space.

1. People qualifying for campus parking privileges will be issued a tag indicating the privilege has been granted and assigned to a specific parking area.
2. Any person who intends to operate a vehicle on campus after the date on which permits are required must register the vehicle within 24 hours with the Office of the Director of Public Safety. Motor vehicles must be registered even when their use is intermittent rather than regular.



Academic INFORMATION

Admissions

William Bailey, Dean of Enrollment Management

Telephone: 814-393-2306; 800-672-7171(1)

E-mail address: admissions@clarion.edu

Website: www.clarion.edu/admiss

Admission of Freshmen

In accordance with the principles governing admission adopted by the university, six general requirements have been established for admission to Clarion University:

1. Strength of curriculum
2. High school class rank
3. Grade-point average
4. High school profile
5. SAT or ACT test score
6. Recommendations

Applicants to the university are evaluated on these six areas. Applicants must be graduates of an approved secondary school or hold a General Education Development (GED) high

school equivalency diploma issued by the Pennsylvania (or associated state) Department of Education. Home-schooled applicants must be a graduate of a Department of Education-approved home-school association program.

Admission of Freshmen in 2012, 2013, and 2014

Applicants for admission should read and observe carefully the following procedure:

1. Contact the Admissions Office of the university for an application for admission or access it on the Web at www.clarion.edu/admiss.
2. Send the application form to the university along with an application fee of \$30 payable to Clarion University of Pennsylvania. The fee is not refundable. The high school transcript must be sent directly to the university by the guidance counselor or other school official. A medical form is to be completed after the applicant has been accepted.

3. A deposit of \$100 is required when the accepted applicant makes the decision to attend Clarion. This fee is not refundable but is credited toward the student's first semester bill.
4. Clarion University applicants may ask for a decision as early as July 1 following their junior year in high school. This would require the applicant to have taken the Scholastic Assessment Test (SAT) or the American College Test (ACT) in the junior year.
5. All applicants who intend to major in music education must complete a musical audition and personal interview through the Department of Music.
6. Applicants for the Associate of Science degree in Nursing—please see Specialized Admission Requirements for the Associate of Science Degree in Nursing on page 191.

Transferring to Clarion

Clarion University welcomes applications from students who wish to transfer to Clarion from another college or university. Transfer information, including transfer guides for community colleges within the state and region, can be found at www.clarion.edu/transfer and transfer course equivalencies for many colleges nationwide can be found at www.pacollegetransfer.com.

Transfer Policy

Clarion University will accept transfer courses (except remedial/developmental) from regionally accredited two- and four-year institutions (e.g., Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools) that are a grade of C- or better.

Transfer credits that are applied toward a specific major must be approved by the appropriate college dean or director and the department chair of the academic area in which the degree is to be granted. When applying transfer credits, all accepted courses will at least be applied as elective hours. Depending on a student's major and the number of credits, and compatibility of these credits with the student's chosen major, a student may complete her/his degree with credits beyond those required for graduation. Please note the following:

1. Students seeking to transfer must be in good academic and social standing at the transferring institution. It is the applicant's responsibility to submit official transcripts and other necessary materials for evaluation.
2. Credits are transferable, but grades and quality points are not.
3. All courses transferred must be recognized in content and quality.
4. Students who wish to challenge a course equivalency can appeal to the dean of their program of study. Students are requested to provide a course syllabus which gives more detail than just a catalog description. The course is then reevaluated by the appropriate academic department.
5. Transfer students must fill out the regular application for admission to the university, have high school and college transcripts sent to the Admissions Office, and

pay the \$30 non-refundable application fee.

6. Applicants who hold the associate of science or arts degree from a Pennsylvania community college will be accepted by the university and granted transfer credits as outlined in the Academic Passport Principles (see the Credit Transfer Policy section.)
7. Applicants from Pennsylvania community colleges without the associate degree of science or arts will be processed in accordance with regular transfer guidelines.
8. First-time bachelor's degree-seeking students are to complete at least 30 of the last 45 credits and at least 50 percent of the credits in their major from Clarion University. (See "Residence Requirements").
9. To ensure proper placement of transfer credits taken at another institution, students enrolled at Clarion University are strongly encouraged to request written permission from their college dean to take courses at another institution for transfer back to Clarion. Grades and quality points for courses taken elsewhere do not transfer and cannot be used as repeats for grades previously earned at Clarion.

Credit Transfer Policy

Academic Passport Principles

Clarion University affirms its commitment to maximize access to higher education for all Pennsylvanians through the Academic Passport to the Pennsylvania State System of Higher Education (PASSHE). Community college students who have earned the Associate of Arts (A.A.), the Associate of Science (A.S.), or the Associate of Applied Science (A.A.S) degree in a program containing a minimum of 30 credits of liberal arts courses, or PASSHE university students, who transfer from one PASSHE university to another with a 2.0 minimum cumulative quality-point average (QPA) in all course work and a minimum of 12 credit hours, shall be considered to have an Academic Passport which will allow them to transfer to any PASSHE university.

It is understood that the academic passport does not guarantee admission into specific majors. Some academic programs may have additional requirements such as satisfactory scores on Praxis exams or a higher QPA.

In the acceptance and application of credits for students holding an Academic Passport, the receiving university shall look first to apply as many credits as possible toward the satisfaction of lower-division general education requirements. Next, the receiving university shall look toward applying any appropriate credits to satisfy requirements in the major. Last, credits may be applied to satisfy elective requirements. It is the intent of the passport that credits earned as part of a qualifying degree program at a community college or state system university should be accepted and applied toward completion for the baccalaureate degree.

It is recognized that in certain circumstances, such as a change in major or specialized programs of study, it may not be possible to apply all transfer credits earned toward the four-year degree; however, absent legitimate academic

reasons, the intent of this policy is to make full and complete use of credits earned in qualified A.A., A.S., or A.A.S. degree programs. Transfer students shall not be required to repeat or retake courses that they have already successfully completed at another accredited institution.

In accepting the Academic Passport, Clarion University shall follow these principles:

1. Clarion University will recognize and honor the Academic Passport by admitting qualified students and shall apply credit toward graduation for all equivalent college course work completed for the associate's degree.
2. Students seeking to transfer to a PASSHE university and who are admissible shall receive an evaluation of credits prior to enrollment and payment of tuition and fees. (Application fees may still be required.)
3. Transfer students who meet the conditions of published articulation agreements shall not be required to take a higher number of credits for the baccalaureate degree than indigenous students of the receiving institution.
4. Up to a maximum of 45 general education credits and liberal arts course credits shall be used to meet lower division general education requirements, even if the receiving university does not offer the specific course being transferred or has not designated that course appropriate for general education. A course-by-course match shall not be required.
5. Students who transfer with 60 or more credits will be entitled to the same rights and privileges accorded PASSHE students with junior status (i.e., scheduling, internships, etc.).

Transfer Credit Appeal

Students who feel the need to appeal a course equivalency on the degree audit may do so by meeting with the dean of their college. Students who appeal an equivalency are asked to provide a course syllabus which provides more detailed information than catalog descriptions. The course is then re-evaluated by the appropriate academic department.

Admission with Advanced Standing

Advanced Placement—Credit by Examination

1. The College-Level Examination Program

A maximum of 60 credits may be earned through the College-Level Examination Program (CLEP). No more than 30 of the 60 credits may be earned after admission. These examinations, administered by the College Entrance Examination Board, may be taken at the Venango Campus of Clarion University on pre-scheduled testing dates. They are designed for students who have gained college-level knowledge through prior education or training. The CLEP includes 36 subject examinations, which, if successfully passed, will earn the student three credits per examination. Listed below are the general and subject examinations, minimum acceptable scores, and credits available to earn:

General Exams	Course Equivalent	Min. Scores	Cr
English Composition	ENG 111	50	3
Humanities	HUM 120	50	3
Mathematics	MATH 112	50	3
Natural Sciences	PHSC 111	50	3
Social Science and History	Social Science Elective	50	3

Subject Exams	Equivalent	Scores	Cr
American Government	PS 211	50	3
History of the United States I	HIST 120	50	3
History of the United States II	HIST 121	50	3
Educational Psychology	ED 122	50	3
Introduction to Psychology	PSY 211	50	3
Human Growth and Development	PSY 331	50	3
Principles of Macroeconomics	ECON 211	50	3
Principles of Microeconomics	ECON 212	50	3
Introductory Sociology	SOC 211	50	3
Western Civilization to 1648	HIST 111	50	3
Western Civilization 1648 to Present	HIST 113	50	3
College French Level 1	FR 151	50	3
College French Level 2	FR 152	59	3
College German Level 1	GER 151	50	3
College German Level 2	GER 152	60	3
College Spanish Level 1	SPAN 151 & 152	50	6
College Spanish Level 2	SPAN 251 & 252	63	6
American Literature	ENG 225	50	3
Analyzing and Interpreting Literature	ENG 130	50	3
Freshman College Composition	ENG 111	50	3
English Literature	ENG 221	50	3
	ENG 222		3
Calculus	MATH 232	50	4
College Algebra	MATH 110	50	3
Precalculus	MATH 171	50	4
Biology	BIOL 111	50	4
Chemistry	CHEM 153	50	3
	CHEM 154	50	3
Information Systems and Computer Applications	CIS 110	50	3
Financial Accounting	ACTG 251	50	3
Introductory Business Law	BSAD 240	50	3
Principles of Management	MGMT 121	50	3
Principles of Marketing	MKTG 160	50	3

For additional information and a CLEP registration form, contact: Hope Lineman, CLEP Certified Test Administrator, Clarion University—Venango Campus, 1801 West First Street, Oil City, PA 16301. **To have CLEP scores evaluated for credit, submit an official transcript of scores to: Dean of Enrollment Management, Clarion University of Pennsylvania, 840 Wood Street, Clarion, PA 16214-1232.**

2. Advanced Placement Program and Credit by Examination

Students also may earn credit and advanced standing through the Advanced Placement Program of the College Entrance Examination Board. The program is designed for high school students who expect to enter college and who have participated in one or more of the advanced classes while in high school. There are 31 subject areas in the program, and any high school student who earns a score of three or better in a subject area will be granted at least three credits. The National Advanced Placement Examinations are given in May of each year.

Advanced Placement Examination	Advanced Placement Grade Req.	Number Credits Awarded	Course Typically Waived
American History	4 or 5	6	HIST 120 and 121
American History	3	3	HIST 120 or 121
Art History	4 or 5	6	ART 211 and 212

Art Studio–Drawing*	4 or 5	3	ART 121
Art 2-D Design*	4 or 5	3	ART 125
Art 3-D Design*	4 or 5	3	ART 126
Biology	5	8	BIOL 155, 156, 165, 166
Biology	4	4	BIOL 155, 156 or 165, 166
Biology	3	3	A free elective
Calculus AB	3 or 4	3	MATH 232
Calculus AB	5	4	MATH 260
Calculus BC	3	4	MATH 260
Calculus BC	4	4	MATH 270
Calculus BC	5	8	MATH 270 and 271
Chemistry	3, 4, or 5	6	CHEM 153 and 154
Chemistry	Completed AP Lab Reports	2	CHEM 163 and 164
Comparative			
Government Politics	3, 4, or 5	3	PS 210
Computer Science A	3, 4, or 5	3	CIS 163
Computer Science AB	3, 4, or 5	6	CIS 163 and 244
English Language and Composition	3, 4 or 5	3	ENG 200
English Literature and Composition	3, 4 or 5	3	ENG 130
Environmental Science	3, 4, or 5	3	ENVR 275
European History	4 or 5	6	HIST 112 and 113
European History	3	3	HIST 112 or 113
French—Language	5	12	FR 151, 152, 251, 252
French—Language	4	9	FR 151, 152, 251
French—Language	3	6	FR 151 and 152
German—Language	5	12	GER 151, 152, 251, 252
German—Language	4	9	GER 151, 152, 251
German—Language	3	6	GER 151 and 152
Human Geography	3, 4, or 5	3	GEOG 100
Macroeconomics	3, 4, or 5	3	ECON 211
Microeconomics	3, 4, or 5	3	ECON 212
Music—Theory	3, 4, or 5	2	MUS 126
Physics B	4 or 5	8	PH 251 and 252
Physics C—Mechanics	4 or 5	3	PH 258
Physics C—Electricity/Magnetism	4 or 5	3	PH 259
Psychology	3, 4, or 5	3	PSY 211
Spanish—Language	5	12	SPAN 151, 152, 251, 252
Spanish—Language	4	9	SPAN 151, 152, 251
Spanish—Language	3	6	SPAN 151 and 152
Spanish—Literature	3, 4, or 5	3	SPAN 300 level
Statistics	3, 4, or 5	3	MATH 221
Studio Art	3, 4, or 5	3	ART elective
U.S. Government and Policies	3, 4, or 5	3	PS 211
World History	4 or 5	6	HIST 112 and 113
World History	3	3	HIST 112 or 113

*Students receiving a score of 3 for Drawing, 2D Design, or 3-D Design can request a departmental portfolio review and credits may be granted.

3. International Baccalaureate Credits

Students presenting International Baccalaureate credits are awarded Clarion credits providing they earn the following scores: 5 or higher for standard level courses; 4 or higher for higher level courses. Equivalencies can be seen at www.clarion.edu/ibc.

Course	Level	Score	Credits	Course Equivalent
Economics			3	ECON 212
English A1	HL	4 or 5	3	ENG 130
Geography			3	GEOG 1XX
Hist-Americas	HL	4 or 5	3	HIST 113
Hist-Americas	HL	6 or 7	6	HIST 113 & HIST 121
Hist-Africa	HL	4 or 5	3	HIST 113
Hist-Africa	HL	6 or 7	6	HIST 113 & HIST 131
Hist-East and SE Asia	HL	4 or 5	3	HIST 113
Hist-East and SE Asia	HL	6 or 7	6	HIST 113 & HIST 110
Hist-Europe	HL	4 or 5	3	HIST 113
Hist-Europe	HL	6 or 7	6	HIST 113 & HIST 1XX*
Hist-S Asia & Mid East	HL	4 or 5	3	HIST 113
Hist-S Asia & Mid East	HL	6 or 7	6	HIST 113 & HIST 110
Hist	SL	5, 6 or 7	3	HIST 113
Language–Ab initio	SL	5 or 6	3	FR/GER/SPAN 151



Language-B SL	SL	5, 6 or 7	3	FR/GER/SPAN 152
Language-B HL	HL	4 or 5	3	FR/GER/SPAN 251
Language-A ² SL	SL	5, 6 or 7	3	FR/GER/SPAN 252
Language-A ² HL	HL	4 or 5	3	FR/GER/SPAN 281r or 282
Math Studies	SL	5, 6, or 7	3	MATR 1XX
Theatre SL	SL		3	THE 2XX
Theatre HL	HL		3	THE 253
Visual Arts			3	ART 110

*Would use HIST 150–History in the Headlines, if we still had it
 NOTE: We *accept* Standard Level (SL) 5 or higher.
 NOTE: We *accept* Higher Level (HL) 4 or higher.

4. Proficiency Examinations

Course credits, not to exceed 38 semester hours, also may be earned by proficiency examination for advanced college work administered by the departments in which the particular proficiency is taught. Enrolled, degree-seeking students who appear to possess a proficiency equal to or greater than that required in a particular course may make application for such an examination in the Office of the Registrar; the chair of the subject area concerned will determine the validity of the application. Minimum qualifications for proficiency examination applications are as follows: first-semester freshmen must have scored 550 or above in the verbal on the SAT; students other than first semester freshmen must have a QPA of 2.50 or above; and in no case may a student earn credit for a course more than once for any given subject. Proficiency exams are not available to students who are otherwise not enrolled at the university during the semester in which the exam is to be taken. Proficiency exams may not be used to repeat courses in which letter grades have previously been awarded.

5. Credit for Life Experience

Clarion University may grant credit for life experience based upon careful evaluation of such experience. For information, students may contact the dean of the college in which they are enrolled.

General Certificate of Education: Advanced Level

Clarion University grants course credits, whenever possible, in subjects in which an A-level pass has been earned. Course equivalencies will be determined by the appropriate college dean based upon information provided by the student.

International Students

Clarion University is authorized under federal law to enroll nonimmigrant students. Clarion University welcomes applications from students from other countries. If you are not a U.S. citizen or are not a resident alien (with a green card) you will apply to Clarion as an international student.

For international students to be considered for admission they are required to submit the following information:

1. The International Undergraduate Application. (www.clarion.edu/international)
2. Official or certified copies of all academic records with an official seal of the school must be provided from secondary school, college, university, and professional institutions, including all courses taken, grades (plus grading scale), graduation date(s), and copies of diplomas, degrees, or other certificates received. For post-secondary work to be evaluated for transfer credit, please provide a course description or syllabus for each course. Submit both official translated and untranslated records.
3. Applicants from countries where English is not the official language are required to submit official results for the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Applicants from countries where English is the principal language may choose to submit official SAT or ACT scores in lieu of the TOEFL or IELTS.

Admission Guidelines

Basic requirements for admission include a minimum TOEFL score of 500, if it is paper-based, or a score of 173, if it is computer-based, a score of 61 if Internet-based, or a satisfactory SAT/ACT score, or IELTS score of 6.0. Clarion offers an Intensive English Program (IEP) and satisfactory completion of the program meets the university's English language proficiency requirement. As an ESL coop university, the 112 level intensive also meets the university's English language proficiency.

Students who have graduated from a high school (or equivalent) where the language of instruction is not English will be exempted from any general foreign language requirement at Clarion University. Academic credit and/or life experience credit will only be granted for knowledge of one's native language in cases when specific courses or examinations offered at Clarion University are successfully completed.

Non-Degree Admissions

Students who wish to enroll as a non-degree seeking student may enroll for up to 12 credit hours as a Quick Admit. Quick Admit forms are available in the Admissions Office. Note: state and federal financial aid is not available to quick-admitted students, because they are non-degree.

After completing coursework as a quick-admitted student, if a student chooses to apply for "regular" admission (in a degree program), they may do so during the semester in which they will complete no more than 12 credit hours. Applying for

"regular" admission includes a non-refundable application fee, high school transcripts, and college transcripts, if applicable.

Students who have not been approved for degree candidacy after the completion of 12 credit hours of part-time study will not be permitted to continue at the university.

Early Admissions Programs

Clarion University offers three programs that permit qualified high school students to enroll in classes at the university while they are still in high school. The programs provide high school students the opportunity to experience college coursework prior to high school graduation. The coursework provides depth and a greater challenge than their high school curriculum.

The guidelines for each program follows.

L.E.A.P.—Leaders' Early Admission and Jump Start Programs

Admissions Criteria

The following criteria determine admission of high school students to L.E.A.P and Jump Start at Clarion University:

1. Completion of the freshman year in high school.
2. Completion of the L.E.A.P./Jump Start online application.
3. Official transcripts that show enrollment in the academic or college preparatory program in high school while achieving the following:
 - 3.25 cumulative grade-point average (87 percent) or top 20 percent of the class. SAT of at least 1000 (CR & M) or ACT of 21. Students can also be considered with a PSAT of 100 or PSSA scores of proficient or advanced (at least one score must be advanced).
4. Recommendation to the dean of enrollment by the student's guidance counselor and high school principal by way of a signature on the second page of the application. These signatures serve as support for the applicant's motivation, interest, academic ability, and social maturity.
5. Consent of parent or guardian by signature on the second page of the application.

The dean of enrollment management may arrange for an interview with the applicant and parents. The final decision rests with the dean of enrollment management.

Credits

Students receive college course credits and are subject to the same rules, regulations, and benefits as other students at Clarion University. Students may enroll in traditional on-campus classes or web-based courses.

Cost

Funding exists for students who qualify and the cost of tuition for these programs are significantly reduced. Contact the admissions office at 1-800-672-7171, ext. 1 or go to www.clarion.edu/leap, for current costs and application materials.

Please direct L.E.A.P./Jump Start application materials to: Clarion University LEAP/Jump Start program, Office of Admissions, 840 Wood Street, Clarion, PA 16214-1232.



Dual Enrollment

Clarion University and more than 60 school districts have entered into collaborative agreements to provide for the administration and implementation of the Pennsylvania Department of Education Dual Enrollment Grant. The Center for Teaching Excellence serves as the collaborative coordinator. Students have the option of attending class on the Clarion or Venango campuses, online courses, or when arranged by the district at their home school, in the high school they attend, instructed by Clarion University faculty. Dual Enrollment class costs are dependent on the student’s district. Clarion University is prepared to offer a substantial tuition and fee reduction to students enrolled in the Dual Enrollment Program. Dual Enrollment is open to students who:

1. Attend a high school which has a Pennsylvania Department of Education Dual Enrollment grant in collaboration with Clarion University
2. Complete the Dual Enrollment online application
3. Have a cumulative 2.8 high school QPA or 82 percent
4. Submit results from the SAT (900 critical reading and math or better), PSAT (90 or better), or PSSA (proficient or better) tests
5. Obtain signatures from their principal, guidance counselor, and parent or guardian.

To find out if your high school is a Dual Enrollment school, please check with your guidance counselor or on the Web at www.clarion.edu/dual.

Please direct Dual Enrollment application materials and questions about the program to: Center for Teaching Excellence, 840 Wood Street, Clarion, PA 16214 or 814-393-2798.

New Student Orientation

All new students are expected to attend New Student Orientation prior to their matriculation. New Student Orientation sessions are conducted throughout the year, with sessions generally offered in the spring and summer. Family members and guests are encouraged to attend with their student.

The primary objectives of New Student Orientation are to help entering students make the transition from their previous environment to Clarion University and to ensure that students and parents complete critical tasks and receive information necessary for a successful entry into college. In order to facilitate this adjustment and allow the students to pursue their education in the best possible manner, the curricular and co-curricular aspects of university life are explored with students and their family members/guests in large and small groups. Students and family members/guests meet with faculty members and students receive academic advisement as they register for classes.

Registration forms and instructions for New Student Orientation program are mailed to all new students.

Undergraduate Degree Programs

Clarion University offers combined academic and professional curricula leading to the undergraduate degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Science in Business Administration, and Bachelor of Science in Education, as well as certification for teaching in the public elementary, middle, and secondary schools of the Commonwealth of Pennsylvania.

Additionally, it offers associate degree programs and a Bachelor of Science in Nursing at its Venango Campus in Oil City. See Venango Campus, page 178.

Program Listing

- Key: * Concentration only
 ** Certification only
 *** Minor program
 # Post-Master’s Certificate of Advanced Studies
 † Graduate-level Certificate

Updated program information is available at www.clarion.edu/academic

Accounting (page 136).....	B.S.B.A.
Allied Health (page 197).....	A.S.
Anthropology (page 50).....	B.A., ***
Administration Technology (page 187)	A.A.S.
Art (page 52).....	B.A., B.F.A.
Art History	***
Art	***
Graphic Arts	*
Arts and Sciences (page 185).....	A.A.
Athletic Coaching Program (page 10)	** , ***

Biology (page 57)	B.S., M.S.	Information Systems (page 69).....	B.S., **
Ecology and Evolutionary Biology	*, **	International Business (page 139).....	B.S.B.A., **
Biological Sciences (graduate level) (see <i>Graduate Catalog</i>)	*	Latin American and Caribbean Studies (page 50)	**
Environmental Science (graduate level) (see <i>Graduate Catalog</i>).....	*	Leadership-Entrepreneurial track.....	**
Business Administration (pages 145, 185).....	A.S., **	Leadership-Interdisciplinary track	**
General Business Management (page 185).....	*	Leadership-Military Science (page 100).....	**
Business Administration (see <i>Graduate Catalog</i>).....	M.B.A.	Liberal Studies (pages 95)	B.S.
Chemistry (page 65).....	B.S., **	Athletic Coaching.....	*
Chemistry/Biochemistry	*	Athletic Training	*
Chemistry/Business.....	*	Communication.....	*
Chemistry/Engineering Co-op (page 79)	*	Community Services	*
Computer Science (page 69).....	B.S., **	Education.....	*
Criminal Justice (page 186)	A.S.	Education/Library Science	*
Early Childhood Education (page 156, 185).....	A.S., B.S.Ed.	English.....	*
Early Childhood Education	**	Geography and Sustainable Planning.....	*
Early Childhood and Special Education (page 173).....	B.S.Ed.	Global Understanding	*
Economics (page 79).....	B.A.	Library Science	*
Economics, Business (page 138)	B.S.B.A., **	Sport Management	*
Education (see <i>Graduate Catalog</i>)	M.Ed.	Theatre.....	*
Coaching (see <i>Graduate Catalog</i>)	*	Women and Gender Studies	*
Curriculum and Instruction (see <i>Graduate Catalog</i>)	*	Writing	*
Early Childhood (see <i>Graduate Catalog</i>)	*	Library Science (page 166).....	B.S.Ed., #
Instr. Technology Specialist (see <i>Graduate Catalog</i>)	**	Library Science.....	*, **
Literacy (see <i>Graduate Catalog</i>)	*	Library Science (see <i>Graduate Catalog</i>).....	M.S.L.S.
Mathematics (see <i>Graduate Catalog</i>).....	*	Library Science K-12 Certification	**
Reading Specialist (see <i>Graduate Catalog</i>).....	*	Management (page 145)	B.S.B.A.
Science Education (see <i>Graduate Catalog</i>)	*	Marketing (page 148).....	B.S.B.A.
Technology (see <i>Graduate Catalog</i>).....	*	Mass Media Arts and Journalism (See <i>Graduate Catalog</i>) ...	M.S.
World Languages (see <i>Graduate Catalog</i>).....	*	Mass Media Arts, Journalism, and Communication	
Engineering Co-op Program (page 79)	*	Studies (page 72).....	B.S.
English (page 79)	B.A.	Advertising.....	*
Creative Writing	**	Broadcasting.....	*
Literature	**	Communication Studies	*
Professional Writing and Rhetoric.....	**	Corporate Communication.....	*
Writing	**	Film	*
Environmental Biology (page 57).....	B.S.	Journalism	*
Environmental Education (page 157)	**	Public Relations	*
Environmental Geoscience (page 86).....	B.S.	Mathematics (page 96).....	B.S., **
Atmospheric/Oceanic Science	*	Mathematics/Engineering Co-op (page 79)	*
GIS	*	Mathematics/Statistics.....	**
Geoscience	*	Medical Technology (page 57)	B.S.
Mineral Resource Exploration	*	Middle Level Education (page 156)	B.S.Ed.
Film Studies (page 102)	**	English/LA and Reading	*
Finance (page 142).....	B.S.B.A.	Mathematics	*
Corporate Finance	*	Science	*
Personal Financial Planning.....	*	Social Studies	*
French (page 102)	B.A., **	Molecular Biology/Biotechnology (page 57, 58)	B.S.
French Education (page 158).....	B.S.Ed., **	Biotechnology	**
Geography (page 89).....	**	Music (page 109)	**
Geographic Information Science.....	**	Music Education (page 169).....	B.S.Ed.
Geology (page 86).....	B.S.	Music Education.....	*
German (page 102)	**	Nursing (page 192, 193)	A.S.N., B.S.N.
History (page 98)	B.A., **	Nursing (see <i>Graduate Catalog</i>).....	M.S.N.
Ancient Mediterranean Studies	**	Nursing-Family Nurse Practitioner (graduate	
Black Studies.....	**	level program)	**, †
Industrial Relations (page 145).....	B.S.B.A.	Nursing-Nurse Educator (graduate level program)	**, †
Industrial Technology (page 187)	A.A.S.	Paralegal Studies (page 185).....	A.S.

Philosophy (page 114)	B.A., ***
Physics (page 116)	B.S., ***
Astrophysics	*
Nanotechnology	***
Physics/Engineering Co-op (page 79).....	*
Environmental Sustainability	***
Political Science (page 119).....	B.A., ***
Criminal Justice.....	*
Psychology (page 122).....	B.A., B.S., ***
Public Relations Certification (see <i>Graduate Catalog</i>)	†
Medical Imaging Sciences (page 197).....	B.S.
Medical Dosimetry.....	*
Radiation Therapy	*
Radiologic Technology	*
Ultrasound	*
Real Estate (page 142)	B.S.B.A.
General Real Estate	*
Legal Business Studies.....	*
Rehabilitative Sciences (page 172).....	B.S.
Courts and Community Service	*
Developmentally Disabled	*
Gerontology.....	*
Substance Abuse.....	*
Rehabilitative Sciences (see <i>Graduate Catalog</i>)	M.S.
Corrective Exercise	*
Rehabilitative Services (page 186)	A.S.
Respiratory Care (page 198)	A.S.
Secondary Education, Biology (page 157)	B.S.Ed., **
Secondary Education, Chemistry (page 157).....	B.S.Ed., **
Secondary Education, Earth and Space Science (page 157)	B.S.Ed., **
Secondary Education, English (page 157)	B.S.Ed., **
Secondary Education, General Sciences (page 158)	B.S.Ed., **
Secondary Education, Mathematics (page 158).....	B.S.Ed., **
Secondary Education, Physics (page 158).....	B.S.Ed., **
Secondary Education, Social Studies (page 158)	B.S.Ed., **
Sociology (page 125)	B.A., ***
Social Work	***
Spanish (page 102).....	B.A., ***
Spanish Education (page 158)	B.S.Ed., **
Special Education (see <i>Graduate Catalog</i>).....	M.S.
Special Education (page 170)	B.S.Ed., **
Special Education–Intervention Specialist	B.S., M.S.
Speech Language Pathology (see <i>Graduate Catalog</i>)	M.S.
Speech Language Pathology (see <i>Graduate Catalog</i>)	**
Speech Pathology and Audiology (page 177).....	B.S.,***
Sports Management (page 10)	***
Theatre (page 128)	B.A., B.F.A.
Acting	*, ***
Musical Theatre.....	*
Technical	***
Technical Design/Direction.....	*
Women and Gender Studies (page 132).....	***

Academic Opportunities

ROTC-Military Science

In partnership with the Military Science Department at Indiana University of Pennsylvania (IUP), Clarion University offers qualified students the opportunity to earn a commission as an officer in the United States Army. The Reserve Officers’ Training Corps (ROTC) Program provides leadership training that students can apply throughout their careers regardless of major.

At Clarion University, your path to leadership excellence starts right here. Our on-campus program offers specialized training through both course and co-curricular activities. Whether you participate for a semester, two years, or a full four years, you’ll learn leadership and management skills. Participation is open to all students, and there are a variety of opportunities for scholarships and financial aid.



Academic Information

Honors Program

Hallie E. Savage, Ph.D., Director
 B-3 Ralston Hall
 Telephone: 814-393-2585
 E-mail address: hsavage@clarion.edu
 Website: www.clarion.edu/honors

Clarion University’s Honors Program is a community of academically talented students committed to seeking excellence in all areas of higher education. The Honors Program is for those individuals who desire professional success, demand academic excellence, and expect to create the future. The curriculum promotes development of life skills targeted for successful career outcomes. The Honors experience extends beyond the walls of the traditional classroom. Courses have included contemporary topics in

the arts and humanities, sciences, and social sciences. Co-curricular themes prepare our Honors Program students to assume leadership roles.

Honors courses satisfy general educational requirements. Courses are taught as special topics and faculty instructors are recruited for their scholarly expertise. Students take a six-credit linked English and speech class and a three-credit humanities course in the freshman year. In the sophomore year, students take a three-credit mathematics or science course and a three-credit social sciences course. As juniors, students take a seminar that culminates in a project prospectus for the capstone experience. Honors 450 is the Senior Project delivered in a university-wide presentation. The following program standards must be maintained at the end of each academic year:

• Freshman Year	9 program credits	3.0	QPA
• Sophomore Year	15 program credits	3.25	QPA
• Junior Year	18 program credits	3.4	QPA
• Senior Year	18-plus program credits	3.4	QPA

Honors students major in every department within the university and receive pre-professional advisement. All course substitutions or changes in academic programs must be approved by the Honors Program director. Successful completion of the program is recognized at Commencement

and is also noted on the official transcript. The Honors Program houses the Office of National Scholarship Advisement to promote and support applications for nationally competitive awards. Honors students are eligible for academic scholarships.

Each year a limited number of freshmen are selected for the Honors Program. To be considered for Honors Program admission, entering freshman must have a minimum SAT score of 1150 or equivalent ACT scores, achieve a minimum grade-point average of 3.65 or 92 percent, successfully complete an interview, and provide a short essay. Undergraduate students already enrolled or transfer students may also apply. If a student should fail to maintain the required QPA and course progression, the student will be placed on probation and have one semester to meet the requirements. A student who fails to achieve the required QPA and course progression by the end of the probationary semester will not be allowed to continue in the Honors Program or to continue to receive an Honors scholarship.

Program suspension may be appealed. A letter of appeal must be submitted to the Honors Program director within two weeks of the date in the letter of notification of termination in the program. The appeal will be reviewed by the Honors Council and action taken before the beginning of the following semester. The credit/no record option will not be available for courses carrying Honors credit.

Honors Courses

HON 128/129: *MODES OF DISCOURSE*

6 s.h.

Interdisciplinary course integrates the student's production of both written and spoken discourse. This course is an alternative method of teaching communication, and draws upon the skills of instructors from English and speech communication. Equivalent of ENG 111 and CMST 113. Required for all Honors Program students.

HON 130: *SPECIAL TOPICS: HUMANITIES*

3 s.h.

Interdisciplinary course in the humanities. Focuses on human values, beliefs, and accomplishments as expressed in art, music, literature, philosophy, and religion. Required of students enrolled in the Honors Program.

HON 131: *CLASSIC WORKS REQUIREMENT*

3 s.h.

Interdisciplinary courses designed as an alternative humanities offering to HON 130. Students must fulfill a requirement of attendance of music, dance, theatre, and film events, as well as a literature component. Course will be offered on an as needed basis.

HON 230: *SPECIAL TOPICS: SCIENCE/MATHEMATICS*

3 s.h.

Interdisciplinary course in the natural sciences and/or mathematics. Focuses on basic principles in the natural sciences and/or mathematics and their development within the context of human civilization. Required of students in the Honors Program.

HON 240: *SPECIAL TOPICS: SOCIAL SCIENCES*

3 s.h.

Interdisciplinary course in the social sciences. Focuses on human civilization from the perspective of the social scientist. Required of students enrolled in the Honors Program.

HON 350: *JUNIOR SEMINAR*

3 s.h.

Interdisciplinary seminar foundational to the development of the Senior Project and career planning. It is crucial in bridging the Honors sequence with the final project as it develops presentation and portfolio skills while requiring students to develop the prospectus for their senior project and linking with a faculty mentor.

HON 450: *SENIOR PROJECT*

1-3 s.h.

A scholarly project of an interdisciplinary nature including the student's major area of study. A public presentation of the outcome of the project is required. Required of students enrolled in the Honors Program.



Study Abroad—International Education

Clarion University, as part of its mission to serve the educational needs of the citizens of the Commonwealth of Pennsylvania, is dedicated to strengthening the international and intercultural dimensions of its academic programs and activities. The leadership of the university recognizes the interdependence of nations and peoples throughout the world.

Clarion University is committed to providing a variety of study abroad and exchange programs. Study abroad programs offer students the opportunity to maintain enrollment at Clarion while attending an international university. Programs may be offered in both foreign and English language settings and may vary in duration.

The Office of International Programs (OIP) administers and provides services and programs inclusive of two major areas: International Students and Study Abroad. The study abroad-related services and programs include but are not limited to: promotion of student and faculty exchanges, development of sustainable partnership with international universities, and the coordination of student and exchange scholar immigration.

Applications for study abroad and the International Scholars Award are located in the Office of International Programs, B-8 Ralston Hall. Additional information is available at www.clarion.edu/46770.

Summer Session

The Summer Session is maintained for the benefit of regular Clarion University students, incoming freshmen, students in good academic standing at other institutions, graduates of approved colleges and universities, teachers who wish to meet certification requirements, certain high school students, and any adults who wish to attend classes. In addition to the regular undergraduate and graduate course offerings, there are also workshops and special programs.

Clarion University and the surrounding area offer numerous opportunities for summer activities. There is one three-week Summer I session and two consecutive five-week sessions. Interested students should contact the Office of Extended Programs for details.

Winter Intersession

The Winter Intersession was established to enable students to obtain additional credits outside the regular semesters. Only on-line classes are offered and students may take no more than one class during the Winter Intersession.

Classes run for just over three weeks. Dates are noted in the academic calendar. The session follows the standard add/drop refund period. Only limited library, student services, and office services (registrar, bursar, financial aid, etc.) are provided. Office services are unavailable for one week in the middle of the term. The Financial Aid Office will not be reviewing progress after the Winter Intersession, so a passing grade can help a student regain aid, but not lose aid.

Veterans' Affairs

Clarion offers the regular degree curricula to veterans and children of deceased veterans.

Credit for educational experience in the armed services is allowed on the basis of the recommendations of the American Council on Education.

The university grants a maximum of four credits in health and physical education for active military service of four months or more with honorable discharge or continued reserve status. Credit is normally given for HPE 111 (two credits), and two HPE activity courses of one credit each. To ensure credit is granted, veterans should bring an honorable discharge document (Form DD214) to the Office of the Registrar, 122 Carrier.

Visiting Student Program

The Visiting Student Program provides students in good academic standing who have completed a minimum of 12 credits in residence the opportunity to take advantage of courses, programs, or experiences offered at the other 13 institutions of the Pennsylvania State System of Higher Education. These experiences require advance approval of the student's department chairperson and college dean and must not also be offered at Clarion University. Students may take a maximum of 24 credits via the Visiting Student Policy.

Applications and additional information are available at the Office of the Registrar, 122 Carrier Administration.

Center for Academic Achievement

Brenda Dédé, M.Ed., Associate Vice President for Academic Affairs

103 Carrier Administration Building
Telephone: 814-393-2223
E-mail address: bdede@clarion.edu

The Mission of the Center for Academic Achievement is to support the retention and graduation of students enrolled at Clarion University of Pennsylvania and its pre-college programs, through a variety of support services that promote academic success, enhance personal development, and provide an equitable educational experience leading to graduation.

Department for Academic Enrichment

Chris Hearst, M.S., Chair

118 Ralston Hall
Telephone: 814-393-2249
E-mail address: hearst@clarion.edu
Website: www.clarion.edu/academicsupport
Office: 118 Ralston Hall

The university is committed to the academic growth and development of all students. In order to ensure these goals are met, the university established the Department for Academic Enrichment which incorporates student and faculty development, academic advisement, and academic support for students. There are six program units within the Department for Academic Enrichment.

Center for Academic Enrichment

Office: 131 Ralston Hall
Telephone: 814-393-2249
E-mail address: hearst@clarion.edu
Website: www.clarion.edu/academicsupport

The Center for Academic Enrichment provides services to students who may encounter some form of difficulty with their courses and/or need instruction in basic skills development. The Center for Academic Enrichment has two components, the Tutoring Center and the Learning Skills Lab. The two components offer students a comprehensive approach to the development of skills necessary at the collegiate level to ensure academic success. All services are free of charge. Services are available by either appointment and/or by walk-in.

Content tutoring is offered for most lower-level subject areas providing students with the understanding of basic concepts, ideas, and mechanical processes. Tutoring sessions give students the opportunity to secure in-depth clarification and to identify and apply specific reading and study skills required in their academic programs. Most tutoring sessions are one-to-one or small group instruction.

Learning skills instruction provides students with instruction in basic skill development to become independent learners. The Learning Skills Lab staff instructs students in practical study techniques. Students' reading and study skills are diagnosed to identify individual strengths and

weaknesses. Once skill areas are diagnosed, a planned program of instruction is implemented using a variety of instructional aids as well as one-to-one instruction. Students can receive academic assistance in the following areas: time management, note taking, reading comprehension, test taking, vocabulary development, critical thinking skills, and library research.

Academic Skills Courses

AE 100: COLLEGE READING AND STUDY SKILLS **3 s.h.**

Develops reading/study skills required at the college level through discussion, problem solving, reading, and writing. Students will organize study plans and develop specific skills in classroom note taking, test reading, test taking, and critical thinking. Students will be introduced to campus resources, including the library, The Writing Center, the counseling center, and others which are necessary to student success.

AE 101-102: EXPLORATIONS I AND 2 **.5 s.h.**

A co-curricular course for first-year students, a cooperative program of student affairs and academic affairs. Intended to acquaint students with many aspects and resources of Clarion University, students will explore and understand themselves interacting in a higher-education environment, identify and utilize campus resources, and develop strategies to facilitate learning. The intent is to forge positive active relationships among students, faculty, and staff; help students be informed self-advocates, and engage in co-curricular and extra-curricular activities, which will enhance personal growth and education. 0.5 credit each semester for a total of 1 credit.

AE 110: THE STUDENT IN THE UNIVERSITY **3 s.h.**

Enables freshman students to (1) explore and understand themselves as developing adults interacting in a higher education environment; (2) identify and/or utilize campus and community resources that will enhance their academic program; (3) develop strategies to facilitate the learning process; and (4) apply those strategies in a practical manner in order to build upon a resource base for academic skill transference. Note: Designed for freshman students only and is a general elective under personal development and life skills. As needed.

AE 260: CAREER EXPLORATION AND PLANNING **1 s.h.**

Focuses on the career planning process that involves: (a) career awareness—students learn to examine the world of work and the occupational alternatives available; (b) self study—students learn to examine their own personalities, interests, needs, achievements, abilities, and values when developing a personal career plan; and (c) career decision-making—students learn to practice the skills necessary to make prudent occupational choices and set realistic goals.

Disability Support Services

Jennifer May, M.S., Director

102 Ralston Hall
Telephone: 814-393-2095
E-mail address: jmay@clarion.edu
Website: www.clarion.edu/dss

The Office of Disability Support Services (DSS) functions as the university's primary vehicle for assisting students with documented disabilities. Students must initiate the process of receiving accommodations by contacting the coordinator of Disability Support Services, located in 102 Ralston Hall to discuss their need for disability related services. Also, as part of the university's registration process, students are provided with a confidential questionnaire that enables them to notify the university of possible accommodations and services that are related to a disabling condition. In addition, students must



contact the Office of DSS to submit proper documentation and discuss requested accommodations. Students should contact the DSS office far enough in advance to allow sufficient time to coordinate accommodations.

Information on services for students with disabilities may be obtained by contacting the coordinator of Disability Support Services, 102 Ralston Hall, 814-393-2095. Additional information can also be found in the section, "Nondiscrimination on Basis of Disability" on page 30 of this catalog.

Inquiries regarding services and facilities accessibility may also be obtained by contacting the Assistant to the President for Social Equity, 207 Carrier Hall, 814-393-2109.

Student Support Services

The TRIO Student Support Services Program is available to students with disabilities who desire additional help in the form of academic advising, freshman seminars, informational workshops, and assistance with study skills. Students accepted into the program must meet eligibility requirements established by the institution and the U.S. Department of Education. Students interested in obtaining information about the program should contact the director, Student Support Services Program, 104 Ralston Hall, 814-393-2347.

Educational Talent Search Program

Rhonda J. McMillen-Toth, M.S., Director

219 Ralston Hall

Telephone: 814-393-2071

E-mail address: rmcmillen@clarion.edu

Website: www.clarion.edu/ets

As part of Clarion University's mission to serve community residents, Educational Talent Search (ETS) serves 900 participants annually in Clarion, Jefferson, and Venango counties. Talent Search assists people age 11-27 to complete secondary education programs and enroll or re-enroll in post-secondary education.

ETS provides such services as study skill instruction, campus visits, entrance exam preparation, post-secondary and career planning, financial aid information, cultural enrichment programs, and leadership training. Participants are selected based upon eligibility criteria established by the U.S. Department of Education, the program's funding agent.

Golden Eagle Pre-College Program

Regina Jack, Coordinator

132 Ralston Hall

Telephone: 814-393-1875

E-mail address: rjack@clarion.edu

Website: www.clarion.edu/precollege

The Golden Eagle Pre-College Program serves students who have potential for college success, but who would benefit from a learning experience before enrollment in the Fall Semester. The primary objective of the program is to provide students the opportunity to use learning, living, and social skills developed through interactive and cooperative experiences, which ease the transition from high school to college.

The program is three weeks in length and is held in late summer. Students earn three credits of college-level coursework which counts toward the university's general education requirements. Students live together in a college residence hall, unless they live within commuting distance.

Enrollment in the program is a requirement for students who are referred to the program.

Specific objectives include:

1. Students will develop learning skills and experience positive interpersonal relationships with faculty, staff, and other students through a welcoming academic and social environment.
2. Students will receive academic and personal support to enhance development of academic and social independence.
3. Students will experience college credit coursework that provides an accurate and effective transition from high school to collegiate academics.
4. Students will gain exposure to academic services, such as free tutoring, study skills assistance, and more, that are available during the academic year.
5. Students will earn priority course registration for their first Fall Semester classes.

TRIO Student Support Services Program

Shelly Silvis, M.Ed., Director

104 Ralston Hall

Telephone: 814-393-2347

E-mail address: ssilvis@clarion.edu

Website: www.clarion.edu/trio

Students admitted to the TRIO Student Support Services Program are provided with developmental services which may include learning skills assistance, academic advising, and career and financial aid counseling. During the academic year, workshops and on-going services which focus on academic survival and learning-to-learn activities are offered. A reserved section of AE 100: Reading/Study Skills, is also offered to program students. Students accepted into the program must meet eligibility requirements established by the institution and the U.S. Department of Education.

TRIO Upward Bound Program

Michele M. Lagnese, M.A., Project Director

107 Ralston Hall

Telephone: 814-393-2342

E-mail address: mlagnese@clarion.edu

Website: www.clarion.edu/upwardbound

As part of the university's commitment to serving the community, the TRIO Upward Bound Program is designed to enhance the overall potential for college success in selected high school students from Clarion, Jefferson, Mercer and Venango counties. The program operates in two segments—the academic year component and the residential summer academy. Services such as tutoring, career exploration, and academic counseling are provided year-round. The six-week summer academy offers participants the opportunity to experience life on campus at Clarion University while receiving academic instruction, experiencing a variety of cultural and social activities, and participating in educational travel. Participants are chosen based on eligibility criteria established by the program in accordance with the U.S. Department of Education.

Minority Student Services

Rogers Laugand, Director

277 James Gemmell Student Complex

Telephone: 814-393-2043

E-mail address: rlausand@clarion.edu

Website: www.clarion.edu/mss

The Office of Minority Student Services provides programs and opportunities for members of underrepresented groups, including African Americans, Hispanic Americans, Asian Americans and Native Americans, to share their cultures and experiences with each other and with members of other groups. The office supports a number of initiatives and groups, including: Black Student Union, Leadership Institute, Academic Excellence Program, UMOJA publication, Eyes on the Prize, Mentoring Program, Annual Minority Student Recognition Dinner, Minority Student Services Leadership Council, Community Outreach Programs, Men of Color Think Tank, Asian Students International Association, Women United and Project SOAR (a retention program for state system partnership programs).

Transitions Services

Erin Schuetz, Coordinator, Transitions Services

273 Gemmell

Telephone: 814-363-1769

E-mail address: eschuetz@clarion.edu

Website: www.clarion.edu/transitions

The Transitions program is a collaborative effort of the divisions of Academic Affairs and Student and University Affairs. It builds a foundation for first-year students through activities supporting retention initiatives. First-year programs include orientation and Discovery Weekend. The Transitions staff is also involved in planning Activities Day, Around Clarion in 80 Days and Family Day events.

University Advising Services

Academic Advising

Telephone: 814-393-1879, 144B Ralston

E-mail address: advising@clarion.edu

Website: www.clarion.edu/advising

University Advising Services Center serves as the primary source for all undecided and liberal studies academic advising. The office provides drop-in academic advising to all university students. Advising Services also serves as a resource for all faculty for professional development and answers to advising questions.

Purpose

To assist students in their academic growth and development; promote advisor-advisee relationships characterized by trust, mutual respect, and openness; and establish a climate of purposeful learning which maximizes student growth and minimizes student withdrawal.

Advisor/Advisee Roles and Responsibilities

As an advisee you should:

1. keep in touch with advisor
2. make and keep appointments; email or call if changing an appointment
3. come with specific questions in mind
4. ask about other sources of information
5. be open concerning academic work, study habits, academic progress, etc.
6. build a class schedule which meets necessary academic requirements and is free of time conflicts
7. make decisions concerning careers, choice of majors, and selection of courses

Your advisor should:

1. post office hours
2. keep appointments or call if it is necessary to change or cancel an appointment
3. provide accurate and specific information
4. suggest other sources of information
5. listen and help solve problems
6. check schedule for appropriate selection of courses
7. suggest options concerning careers, choice of majors, and selection of courses

The Writing Center

Christopher McCarrick, D.A., Director

Office: 210C Davis Hall

E-mail address: cmccarrick@clarion.edu or wcdirector@clarion.edu

Website: www.clarion.edu/wc

The Writing Center supports all students in their efforts to become better writers and provides assistance with writing assignments in all subject areas.

The Writing Center is not a proofreading or editing service. It is a support service for any writer who values feedback as part of the learning/writing process.

Consultants at The Writing Center assist students at whatever stage of writing they need assistance. Writing consultants aim to motivate rather than control a writer by asking questions, offering feedback, and encouraging writers to talk through the thinking and planning process.

Writing consultants assist writers at the level of the writer's ability; therefore, written work reflects each writer's ability as well as personal style. In this way, the center assures faculty that writing turned in for evaluation is the student's work, and not that of a writing consultant.

Writing consultants are graduate and undergraduate students who undergo a careful screening process and participate in weekly training sessions. Writing consultants who meet training and tutoring hour requirements receive College Reading and Learning Tutor Certification.

Extended Programs

Arthur J. Acton, Ph.D., Associate Vice President for Graduate and Extended Programs

130 Harvey Hall

Telephone: 814-393-2774

E-mail address: aacton@clarion.edu

The Office of Extended Programs coordinates all non-credit and credit programming and most off-campus credit programming as detailed below:

Clarion University–Virtual Campus

Lynne M. Lander Fleisher, Director

131 Harvey Hall

Telephone: 814-393-2778

E-mail address: lfleisher@clarion.edu

Website: www.clarion.edu/virtualcampus

Clarion University, combines its academic tradition of excellence with online educational technology to provide programs that are—Accredited.accessible.anywhere. The virtual campus includes online classes and programs.

Information on the availability of specific degrees online is indicated under each of the degree program areas. A list of current course offering and online undergraduate programs is available on the Web at www.clarion.edu/virtualcampus.

Off-Campus Courses and Programs

A variety of face-to-face classes and classes, delivered by way of Interactive Video Conferencing (ITV) in specialized programs, are offered around the state at various locations.

The Center for Teaching Excellence

Susan Staub, Interim Director

113 Stevens Hall

Telephone: 814-393-2776

Website: www.clarion.edu/cte

The Center for Teaching Excellence mission is to provide specific professional development training to schools and teachers and offer college experiences for current high school students. CTE administers the Dual Enrollment Program, serving students from high schools throughout western Pennsylvania. The center provides the planning, development, marketing, and administration of the off-campus Master of Education in Curriculum and Instruction degree

servicing graduate students across the commonwealth. The center provides record keeping and implementation of the approval process for all university Act 48 activities, both on and off campus, as well as development and marketing of all Department of Education summer workshops and course offerings and paraprofessional workshops. CTE directs assistance to community organizations, such as Keystone SMILES and the Clarion County Literacy Council, along with all monies from the America Reads program. CTE also supports and administers the Superintendent's Roundtable and EC-12 Council, along with various projects undertaken by the Department of Education and its faculty.

Clarion University–Pittsburgh Site

The Clarion University Pittsburgh Site is affiliated with and located in The Western Pennsylvania Hospital School of Nursing at 4900 Friendship Avenue in the Bloomfield section of Pittsburgh. The Pittsburgh site offers 30 college-level credits in courses required in West Penn's School of Nursing two-year diploma program. While West Penn nursing students are working toward their diploma in nursing, they have an opportunity to concurrently earn an Associate of Science Degree in Allied Health (ASAH) from Clarion University by completing their general education course work through Clarion University.

Continuing Education

Juanice F. Vega, M.B.A., Director

210 Still Hall

Telephone: 814-393-2227

E-mail address: jvega@clarion.edu

Website: www.clarion.edu/ce

The focus of continuing education is to organize and make available to individuals and businesses instructional opportunities and workforce development funding. Educational programs of all types, presented in almost any format, are developed to meet the needs of a variety of audiences. Continuing Education works with numerous companies annually to coordinate and administer funding (WEDnet and CJT) for employee training.

Generally, continuing education activities fall into one of three program types: non-credit courses, open to the general public without regard to educational background; corporate/organizational training that is customized to meet client needs; and workshops, conferences, and seminars which provide a concentrated experience developed for a specific group.

Non-credit courses, as the name implies, do not carry academic credit, do not require admission to the university, and generally do not have examinations or grades. Reasons for pursuing non-credit courses could be for gaining job skills, personal or professional development, intellectual enrichment, or just plain fun.

Accelerated Program

Students who take three summer terms of 10 weeks each may finish the four-year course in three years.

General Policies

Student Records

Student academic and personal records are confidential in nature and protected by the Family Educational Rights and Privacy Act (FERPA) of 1974. Records shall be released only to appropriate faculty and administrative personnel and to parents and guardians if the student has provided the Office of the Registrar with a signed written release. Release of these records to others, including institutions or governmental and legal agencies, shall occur only upon approval by the student or graduate, or upon subpoena.

Transcripts of academic work are available to the student or graduate at the Office of the Registrar when requested in writing. There is a limit of three transcripts per request per day. No transcript shall be issued to a student who is financially indebted to the college. All enrolled, degree-seeking students are charged a one-time academic records fee which is added to their statement of charges from the Accounts Receivable Office.

Grade Release Policy

The Family Educational Rights and Privacy Act (FERPA) of 1974 prohibits the release of educational records, other than to certain defined exceptions, without the student's consent. Therefore, no transcripts, grades, or QPAs shall be released through a telephone call or via facsimile.

The Office of the Registrar will send grades to parents upon request, if the student has completed a Release of Information form. Grades are available via the Web.

Family Educational Rights And Privacy Act (FERPA) Notification Statement

The following notification statement is made available to students enrolled at Clarion University to apprise them of their rights concerning access and review of their education records maintained at the university.

These rights afforded to students through the Family Educational Rights and Privacy Act (FERPA) are:

The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students should submit to the registrar, dean, chairperson, director or other appropriate University official written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. Students may ask the university to amend a record that they believe is inaccurate or misleading.

They should write the university official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision

and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the university in an administrative, supervisory, academic or support staff position (including law enforcement and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or assisting another school official in performing his or her tasks. The university uses contractors, volunteers, in-service providers to provide university services and functions. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the university may disclose education records without consent to officials of another school in which a student seeks or intend to enroll.

Examples of this are any collaborative programs that Clarion is involved in with sister PASSHE universities. These collaborative programs result in dual enrollment at both schools and Clarion will disclose certain information from the student's education records to the other institution under the program.

The right to file a complaint with the U.S. Department of Education concerning 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 20202-4605

Directory Information:

Clarion University shall disclose nothing more than "directory information" without the student's written consent, unless the Family Educational Rights and Privacy Act of 1974 permits the disclosure. One of those permissible disclosures is to faculty who has a legitimate educational interest. The following are considered to be "directory information:" the student's name, local and permanent addresses and telephone numbers, university e-mail address, age, names of parents, major field of study, dates of registered attendance, enrollment status (e.g., undergraduate or graduate; full-time or part-time), participation in officially recognized activities and sports, any degrees and the date they were conferred, any honors and awards received, and the most recent educational agency or institution attended. A student may refuse to permit disclosure of "directory information" by submitting in person to the Office of the Registrar, 122 Carrier Hall, at any time a written statement of such refusal. However, if the student's intent is exclusion of his or her information in the yearly printed directory, they must submit this refusal during the first five days of the Fall Semester.

Nondiscrimination on the Basis of Disability

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and The Americans With Disabilities Amendments Act of 2008 have provided the framework for protecting individuals with disabilities against discrimination. Clarion University, which is a federally funded institution, must provide for nondiscrimination under its federal grants and programs. Thus, “no otherwise qualified individual with a disability in the United States... shall, solely by reason of her or his disability be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance...” (29 U.S.C. §794(a), see also 29 U.S.C. 706(8), see also 42 U.S.C. §§ 12132, 10102, 12114). An “individual with a disability” has been defined, with certain exceptions, as “any person who (i) has a physical or mental impairment which substantially limits one or more of such person’s major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment.” (See 42 U.S.C. § 12101 et. seq., and 29 U.S.C. § 701 et. seq.)

The applications of these laws at Clarion University ensure:

1. No qualified individual with a disability may be excluded solely by such disability from any course, or courses of study.*
2. Classes may be reassigned for those students with mobility impairments if they are scheduled for inaccessible classrooms.*
3. Academic degree or course requirements may be modified in certain instances to ensure full participation by students with disabilities.*
4. Alternate methods of testing and evaluation are available in all courses offered by the university for students with documented requirements for such methods.*
5. Auxiliary aids are made available by the university for students with impaired sensory, manual, or speaking skills.*
6. Certain campus rules and regulations may be waived if they limit the participation of qualified students with disabilities.*
7. Housing opportunities, employment opportunities, and other opportunities for students with disabilities are equal to those of students without disabilities.*

**Note: The university is only legally obligated to provide academic adjustments to a qualified individual with a disability who has made his or her need known and when it has received the appropriate documentation of such disability to support the adjustment. Thus, the students must provide the university with the necessary medical and diagnostic information to support their requests, including specifying what academic adjustments are needed.*

Information on services for students with disabilities may be obtained by contacting the coordinator of Disability Support Services, 102 Ralston Hall, 814-393-2095. Additional information can also be found in the section, “Disability

Support Services” on page 27 of this catalog.

Inquiries regarding services and facility accessibility may also be obtained by contacting the Office of Assistant to the President for Social Equity, 207 Carrier Administration Building, 814-393-2109.

Academic Policies

Scholarship policy at Clarion University is formulated by the Subcommittee on Academic Standards, which is a subcommittee of Faculty Senate.

Academic Honesty

Students at Clarion University shall maintain a high standard of honesty in scholastic work. As members of the university community, students have a responsibility to be familiar with the conduct regulations found in the university catalogs, *Residence Hall Handbook*; *Student Rights, Regulations, and Procedures Online Handbook*, and other university documents. Among the conduct regulations addressed are acts of academic dishonesty, including plagiarism or cheating on assignments, examinations, or other academic work, or without prior approval of the instructor, submitting work already done for another course.

Students shall avoid all forms of academic dishonesty, including but not limited to:

1. **Plagiarism**—the use of another’s words without attribution and without enclosing the words in quotation marks. Plagiarism may also be defined as the act of taking the ideas or expression of ideas of another person and representing them as one’s own—even if the original paper has been paraphrased or otherwise modified. A close or extended paraphrase may also be considered plagiarism even if the source is named.
2. **Collusion**—collaborating with another person in the preparation of notes, themes, reports, or other written work offered for credit, unless specifically permitted by the instructor.
3. **Cheating on an examination or quiz**—giving or receiving information or using prepared material on an examination or quiz.
4. **Falsification of data**—manufacturing data, falsification of information, including providing false or misleading information, or selective use of data to support a particular conclusion or to avoid conducting actual research.

Complaints of academic dishonesty may be brought against a student by any member of the academic community. Sanctions for academic dishonesty can range from a failing grade on a particular assignment or examination to dismissal from the university, based on the seriousness of the action and whether it is part of a pattern of academic dishonesty. Sanctions extending beyond a particular course, such as suspension or dismissal from an academic program or from the university, can only be imposed as a result of complaints filed under the Disciplinary Procedures Code and addressed through a formal hearing before the Conduct Board.

Instructors imposing a lowered or failing grade on an assignment or course as a result of a charge of academic

dishonesty must inform the student in writing of the charge, as well as provide a copy to the Office of Judicial & Mediation Services. Students have the right to appeal instructor decisions related to charges of academic dishonesty either (1) through the grade appeal process outlined above (see procedures in section under “Student Rights,” page three), or (2) directly to the university Conduct Board by contacting the Office of Judicial & Mediation Services. A student may not appeal through both procedures. Should a student appeal through the second option, the board will schedule a hearing at which the faculty member will explain the charge and resultant academic action; the student shall then have an opportunity to address the allegation. The decision of the Conduct Board shall be final.

Rather than imposing a lowered or failing grade on an assignment or for a course, an instructor may choose to report an allegation of academic dishonesty directly to the Office of Judicial & Mediation Services. This process automatically results in a formal hearing before the university Conduct Board. Should the board find the student in violation of the academic honesty policy, the student may appeal the decision and/or penalty to the university president. The decision of the president shall be final.

Good Academic Standing

To be in good academic standing at Clarion, undergraduate students must maintain a minimum QPA of 2.00 for both semester and cumulative averages. Individual programs may have higher requirements.

Grading System

A	excellent	AU	audit
B	good	I	indicates incomplete work
C	satisfactory	P	passing
D	poor	W	indicates withdrawal from a course
E	failure	WX	indicates withdrawal from the university
CR	credit		
CX	credit by examination	Z	grade not submitted (temporary)

Incomplete grades are not given unless a student has been in attendance throughout a semester or session. It indicates the work of a student is incomplete and the final grade is being withheld until the student fulfills all the requirements of the course. Incomplete grades are used only when conditions and circumstances warrant and when evidence is presented to justify its being given.

Students receiving incomplete grades are required to make arrangements with the instructor who submitted the incomplete grade to fulfill the requirements of the course by the end of the following semester, or the incomplete becomes a failing grade. Incompletes are not removed by repeating the course.

Calculation of Quality-Point Average (QPA)

Scholastic standing of students is determined on the basis of a quality-point system in which a grade of A equals four quality points per semester hour; B equals three; C equals two; D equals one; and E equals zero. The number of quality points earned in a single course for one semester is determined by

multiplying the quality-point value of the course grade by the number of semester hours in the course; thus, a grade of A in a three-semester-hour course has a quality-point value of 12. A student’s QPA at any specific time is determined by dividing the total number of quality points earned in all courses by the total number of quality hours. For example, if a student earned 30 quality points for 15 quality hours of course work in a single semester, his or her QPA for the semester would be 2.00.

At the end of each semester, a student’s QPA is calculated for that semester and also for all the course work he or she has taken up to and including the semester just completed. The latter is known as the cumulative QPA.

Scholarship policy for two-year programs requires students earn a minimum QPA of 1.75 their first semester and a 2.00 their second semester and thereafter in order to be in satisfactory academic standing. The cumulative QPA should be 2.00 by the end of the second semester.

Academic Probation

To be in good academic standing, undergraduate students must maintain a minimum QPA of 2.00 for both semester and cumulative averages. Students, who have earned 12 quality hours, falling below the 2.00 standard in either the semester or cumulative average will be placed on academic probation effective the next semester of attendance. Students placed on probation will be notified by mail at the end of the Fall or Spring semester. Students on academic probation may not attempt more than 12 to 15 credit hours per semester.

Academic Suspension

Undergraduate students who are not in good academic standing, despite probationary measures, will be placed on suspension. **Second-semester freshmen** on probation with less than a 1.75 **cumulative** and less than a 2.00 **semester** average will be suspended. Students, who have earned 12 quality hours and are not second-semester freshmen, on probation with less than a 2.00 cumulative and less than a 2.00 semester average will be suspended. **Sophomore, junior, and senior** students on probation with less than a 2.00 cumulative and less than a 2.00 semester average will be suspended. Students who are suspended will be notified by mail at the end of the Fall or Spring semester.

Students notified of academic suspension may attempt readmission in the following ways:

1. The student may attend summer sessions at Clarion. If the student earns the required **cumulative** average by the end of the summer and provided it was the student’s first suspension, the student will be readmitted. Students who have been suspended two or more times, must appeal in a typed letter to the Academic Standards Committee.
2. The student may appeal the suspension by submitting a typed letter to the Academic Standards Committee. Students may be readmitted if the poor academic performance was caused by unusual circumstances beyond the student’s control or if for other reasons it is not indicative of future performance. Petitions

must be filed with the committee through the Office of Academic Affairs by the date specified in the notification of academic suspension.

Use the following guidelines when appealing a suspension to the Academic Standards Committee. If possible, include independent documentation and/or references in the petition. Statements should address:

- a. why academic performance was poor;
 - b. how the student expects to improve his or her academic performance and how he or she intends to correct the problem identified in item 2a;
 - c. the projected course of study if a change of major is planned;
 - d. what the student has done since last attending Clarion, including course work completed at other institutions; and/or
 - e. other evidence believed to be helpful to the committee.
3. The student may apply for readmission by writing to the Office of the Registrar after an absence of one or more semesters, provided the suspension was the student's first.
 4. Students who have been suspended two or more times must appeal in a typed letter to the Academic Standards Committee using the guidelines detailed above. Please contact the Office of the Registrar or the Office of Academic Affairs to obtain appeal deadlines.
 5. Suspended students who have been absent from the university for a period of at least four years do not need to file a written appeal to the Academic Standards Committee. Such students may be readmitted through the Office of the Registrar (see "Academic Renewal" on page 36).

Students on academic probation may not attempt more than 12 to 15 credit hours per semester.

Suspended students who wish to take credits at another accredited institution should first consult with their dean to ensure the credits will transfer. Clarion accepts credits from accredited institutions, but grades and quality points do not transfer. Clarion permits transfer of these credits provided the credits are applicable to the student's program and a grade of C or better is earned. Courses in which grades were previously earned at Clarion may not be repeated at another university.

Academic Honors

Academic honors are recognized with a dean's list every semester and with the traditional honors designations of cum laude, magna cum laude, and summa cum laude at graduation.

To be included on the semester dean's list, students must be enrolled for a minimum of 12 graded credits; not including credits by proficiency examinations, incomplete grades, or credit-no record courses; and achieve a semester QPA of at least a 3.50. In order to earn graduation honors, students must have earned at least 32 credits at Clarion. Students who graduate with the following cumulative QPAs will be recognized as honors graduates:

Cum laude	3.40 – 3.59
Magna cum laude	3.60 – 3.79
Summa cum laude	3.80 – 4.00



For the purposes of the commencement ceremony, graduation honors are based on the last graded term prior to commencement. Designation of graduation honors on the academic transcript are determined after submission of final grades and degrees are posted.

For information concerning honorary kinds of recognition that may be accorded by various colleges and departments, students should inquire at the office of their major department and/or the office of the dean of the college in which they are enrolled.

Class Attendance Policy

Clarion University of Pennsylvania regards student participation in class as essential to the learning process. Therefore, regular classroom attendance is required of all students. Faculty members determine the absence policies for their own classes, except that participation in university sanctioned activities or active military service will be excused and the student will be given reasonable assistance when class work is missed.

It is understood that absence does not excuse the student from course work and the responsibility to complete assignments on time. If a student knows a class must be missed, the instructor should be notified in advance and arrangements made to complete the work. The instructor is not required to give make-up examinations or accept class work missed as a result of an unexcused absence.

In the event of an unexpected prolonged absence such as a serious illness or military deployment, the Office of the Registrar should be notified as soon as possible so instructors can be informed of the reason for a student's absence. This information is provided to faculty as a courtesy and does not, in and of itself, constitute a valid excuse for the student's absence from class. A valid excuse will be granted to a student for military deployment following receipt of a copy of the military orders from the student's military command.

Senior Citizens

People on Social Security or equivalent retirement benefits are given remission of fees for classes where space is available. Courses are recorded as audits with no grades or credits earned. Contact the Office of Admissions at 814-393-2306 to complete the process.

Auditing of Courses

With the permission of the instructor, interested persons may audit courses if there is space available in the course from the first day of class and up until the end of the drop/add period. Students must declare their intentions in writing to the Office of the Registrar prior to the end of the drop/add period. Laboratory courses may not be taken as an audit. Students who enroll in a course for credit may change to an audit grade only during the drop/add period. Likewise, students who enroll in a course to audit may only change to credit during this same period.

Credit-No Record Courses

After students have earned a minimum of 30 semester hours of credit and are in good academic standing, they may schedule a maximum of six courses or 18 semester hours for credit-no record. One such course may be taken each semester or Summer Session. This regulation does not apply to internships in the cooperative education program. All such internships are automatically credit-no record. Courses in one's major and minor fields may not be taken for credit-no record. Business students are not permitted to take any business courses, MATH 131, or MATH 132 for credit-no record. The option for taking a course for credit-no record is limited to the first five weeks of each semester and the first two weeks of any five-week Summer Session. Satisfactory work in a credit-no record course shall be shown on the transcript as CR, with no record and no credit for less than satisfactory work. Satisfactory work is defined as the equivalent of C grade or better under the letter grading system in use by the university. Students who desire to have a credit-no record course changed from CR to a letter grade must retake the course. Credit-no record courses are counted in determining the course load for a semester.

Individualized Instruction/Independent Study

A student seeking individualized instruction/independent study must initiate the request by completing the Petition for Individual Instruction and Independent Study form obtained from the dean of the college in which the course is offered, after preliminary discussions with both the advisor and possible instructor. Justification is required.

Independent Study

Independent study provides the opportunity to a student for a unique academic experience otherwise not available through regular curricular offerings. Independent study should not be confused with cooperative or internship courses which provide job experiences. A project description must be composed by the student and submitted along with the petition form.

Individualized Instruction

Individualized instruction allows a student to take an unscheduled course required for completion of a program of study. The course must not be offered currently, and it should be shown as not scheduled for offering prior to the student's intended graduation.

Class Standings

Class standings (freshman, sophomore, etc.) are determined by credits earned rather than by semesters of residence: freshmen, 1-29 credits; sophomores, 30-59 credits; juniors, 60-89 credits; seniors, 90-120 or more credits.

Course Numbering

Courses numbered 100 to 299 inclusive are primarily for freshmen and sophomores; 300 to 499 are primarily for juniors and seniors. Some courses numbered between 400 and 499 are acceptable for graduate credit. Courses numbered above 500 carry graduate credit.

The university reserves the right to change the sequence and number of courses.

Second Major

A student at Clarion University may earn a second major within the same college of the university and within the same degree category (B.S., B.A., or B.F.A.) by completing all requirements of both major programs. In this case, it is not necessary to meet the requirements for the baccalaureate degree, nor is a second baccalaureate degree granted.

Maximum Credit Hour Load

The normal credit-hour load for undergraduate students in good academic standing is 15 to 18 credit hours per semester, three to five credits per three-week Summer Session, six to seven credit hours per five-week Summer Session, and one class during winter intersession. Students on academic probation may not attempt more than 12 to 15 credit hours per semester.

Students wishing to register for 19 to 21 credit hours during any one semester, or more than five credit hours for a three-week Summer Session or seven credit hours for a five-week Summer Session or more than one class during Winter Intersession must have a cumulative QPA of 3.00 or better and the written permission of the appropriate college dean. Students are required to pay for each credit over 18.

All scholastic standards noted above are subject to change by the university.

Readmission

Students who are absent for one or more semesters and students who are returning after an absence following their first academic suspension must apply for readmission in writing to the Office of the Registrar. The deadline is one week before the beginning of classes. Students seeking readmission following an academic suspension should read the section on Academic Suspension (page 32). Students readmitted after an absence of two or more years must meet all requirements of their respective degree program as of the date of readmission.

Repeat Grade Policy

Effective with the Fall 2009 semester, undergraduate students will be limited to a maximum of six repeats. Within the six-repeat rule, single course repeat for grade improvement will be limited to three times. Therefore, a single course can only appear in a transcript a total of three times. This policy will not take into account course repeats taken prior to the Fall 2009 semester.

Once a student has graduated from the university, a course cannot be repeated for the purpose of improving one's cumulative undergraduate or graduate QPA.

The latest repeat grade shall be the counting grade in the QPA prior to graduation. The quality points, quality hours, and earned hours of the original grade received will be subtracted from the student's cumulative statistics. Grades earned at another institution cannot be used to replace grades previously earned at Clarion.

Withdrawals

Individual Course Withdrawal Policy

An undergraduate student is permitted five individual course withdrawals at Clarion University. Exceptions may be made for withdrawals due to documented extenuating circumstances with approval of the instructor, advisor, and college dean.

All class withdrawals must be initiated by completing a class withdrawal form, which is signed by the student's advisor. If a withdrawal is not made through the Office of the Registrar, a failing grade will be recorded for the affected course(s). Classes a student drops during the period of drop/add will not appear on the student's record. Course withdrawals between the end of the second and tenth weeks may be made without penalty. After the beginning of the 11th week of a semester or the second half of a Summer Session, a course from which a student withdraws shall be finally reported with a grade of E. Exceptions may be made for withdrawals due to documented extenuating circumstances such as illness or some other unavoidable occurrence with approval of the instructor, advisor, and college dean.

Withdrawal From the University

Students may withdraw from the university (all courses) through the last day of classes.

If a withdrawal is not made through the Office of the Registrar, a failing grade will be recorded for the affected course(s).

Any student who withdraws from the university either during or at the end of a semester must notify the Office of the Registrar in writing of his or her intention to withdraw and the reason for withdrawal. The written notification is necessary for completion of the student's permanent record. Failure to comply with the regulation will constitute an unofficial withdrawal and may affect the student's chances of future readmission.



University withdrawals, which are recorded with grades of WX, are not included in the limit of five individual course withdrawals.

See section on refunds under financial information. (Pages 39 and 44 for financial implications of withdrawal.)

Graduation Requirements

Graduation from Clarion University with a baccalaureate or associate degree requires successful completion of all specified major, degree, and university requirements outlined by the College of Arts and Sciences, the College of Business Administration, the College of Education and Human Services, the School of Nursing and Allied Health, or the Venango Campus.

Undergraduate students must successfully complete a minimum of 120 credits with both a major and cumulative QPA of at least 2.00 except where the requirements of a particular program or college are higher.

All credits, including transfer credits, must be approved by the appropriate college dean or director and the department chair of the academic area in which the degree is to be granted.

Unless exempt, candidates for baccalaureate and associate degrees must successfully complete ENG 111 with a passing grade (education and nursing majors must earn a grade of C or better).

All students are responsible for knowing the major, degree, and university requirements of their respective programs. Students are advised to meet with their academic advisor on a regular basis throughout their undergraduate career.

Residence Requirements

A minimum of 30 of the last 45 credits required for graduation with a baccalaureate degree must be taken at Clarion University. Effective with the Fall 2009 semester, at least 50 percent of major credits must be taken through Clarion University.

Candidates for graduation with an associate degree must complete a minimum of 30 credit hours in residence at Venango Campus in Oil City, Pa. or online for students in a completely on-line program.,

Second Baccalaureate Degree

Students who have earned their first baccalaureate degree from Clarion University may earn a second baccalaureate degree from a different college of the university or different degree (B.S., B.A., or B.F.A.) within the same college. This can be accomplished by completing a minimum of 30 credits, excluding physical education activities, beyond the requirements of the first degree and by completing all of the requirements of the second degree. In this case, the student will receive two diplomas.

Students may also pursue two baccalaureate degrees concurrently by completing vitities, beyond the requirements of the first degree and by completing all of the requirements of the second degree. Students who have earned their first baccalaureate degree from another institution are responsible for satisfying Clarion University's residence requirement.

Academic Renewal

The academic renewal policy permits undergraduate students who return to Clarion University after a minimum four-year absence the one-time option of having D and E coursework excluded from their quality-point average (QPA) calculation. Students enrolled in a bachelor's degree program may have up to 18 semester hours excluded from their QPA calculation. Students enrolled in an associate's degree program may have up to nine semester hours excluded from their QPA calculation. These semester hours must have been completed at Clarion University prior to readmission. The courses, grades, and probationary actions will remain on the transcript with an appropriate notation of academic renewal approved.

Students who have been suspended more than one time and absent from the university for a period of at least four years do not need to file a written appeal to the Academic Standards Committee. These students may be readmitted through the Office of the Registrar. Students must successfully complete a minimum of 30 hours before receiving a baccalaureate degree. Students must successfully complete a minimum of 15 hours before receiving an associate degree.

Students may complete a Request for Academic Renewal form which is available at the Office of the Registrar, 122 Carrier Administration, upon completion of 12 semester hours after readmission with a minimum semester QPA of 2.00.

Students who were in academic progress difficulty for financial aid purposes will remain in an academic probation status unless deficient credits are made up prior to the first semester that the student returns to Clarion University. Once 60 semester hours are earned, the student must have a 2.00

QPA. Removal of up to 18 credits for bachelor's degrees (up to nine credits for associate degrees) of D and E grades may achieve the required 2.00 QPA. All other current financial aid requirements are in effect each semester that the student enrolls at Clarion University.

Special Program Requirements

Special Program Requirements— Medical Technology

To remain in the Medical Technology Program, students must maintain the following QPA: first-semester freshmen, 2.0; second-semester freshmen and first-semester sophomores, 2.5; thereafter 2.5 with a 2.5 in the natural sciences. Exceptions to these requirements must be approved by the coordinator of medical technology.

Admission to the Medical Technology Program at the university does not guarantee admission to the year in the hospital laboratory. Hospital spaces are limited, are under the control of the individual hospitals.

Special Program Requirements— College of Business Administration

Business students pursuing the B.S.B.A. must meet the requirements for admission to the college's upper division. In addition, business administration students must meet graduation standards beyond general university requirements. The academic standards are fully described under the College of Business Administration beginning on page 134.

Students readmitted to the College of Business Administration after an absence of two years or more must meet all requirements of the college as of the date of readmission.

Students who transfer from other regionally accredited universities or colleges must have a minimum cumulative QPA of 2.50 in all previous course work to enter the College of Business Administration.

This applies to all course work taken at all universities prior to attending Clarion University. Clarion students transferring from majors outside the COBA must have earned a minimum cumulative QPA of 2.50 to enter the COBA. Clarion students who do not have a cumulative QPA of 2.50 at the time of the request for transfer into the COBA must have achieved a 2.50 QPA in their most recent 12 credits completed at Clarion University.

Students transferring to Clarion University must take more than 50 percent of their business credits at Clarion. In addition, transfer students must complete a minimum of 15 credits (out of 24) in their specific business major in residence at Clarion University. For additional information, please see the college's policy on QPA and Residency Requirements for Transfer Students.

Credits for courses completed at other universities or colleges are transferable to Clarion University, but the grades and quality points are not. Therefore, grades earned in courses accepted by the COBA to satisfy requirements of the lower- or upper-division core will not be used in the computation of the

QPAs required by the academic standards of the College of Business Administration.

Clarion University students whose major is outside of the College of Business Administration may take no more than 25 percent of their total credits in courses offered by the College of Business Administration. This would amount to a maximum of 32 credits in a 128-credit hour program or 30 credits in a 120-credit hour program. Students who are enrolled in the business minor may be permitted to exceed this limit, dependent upon individual situations, with the approval of the dean of the College of Business Administration. Economics courses taken by majors in the Bachelor of Arts in Economics degree are excluded from this restriction.

College of Education and Human Services Selection, Retention, and Graduation Standards

I. Student responsibilities in all college programs

- A. Complete admission, legal, and medical requirements
 1. First year
 - a. Complete all clearances
 - 1) Act 33/151
 - 2) Act 34
 - 3) FBI clearance
 - b. Complete a physical exam and a TB (Mantoux) test through campus health center
 - c. Teacher certification students must complete at least one professional education course with a grade of C or better
 2. Student teaching/internship/externship experience
 - a. PRAXIS II tests must be passed before graduation
 3. Graduation (from the university)
 4. Certification, where appropriate, from the Commonwealth of Pennsylvania
- B. Meet with advisors on a regular basis for career and program counseling as well as at the appropriate checkpoints in the program to obtain the appropriate forms. Although your advisor should be able to answer your questions, it is the student's responsibility to be informed of the General Education requirements specific to his/her program.

II. Admission to all certification programs

- A. Complete admission, legal, and medical requirements
 1. First year
 - a. Complete all clearances
 - 1) Act 33/151
 - 2) Act 34
 - 3) FBI clearance
 - b. Complete a physical exam and a TB (Mantoux) test through campus health center
 - c. Teacher certification students must complete at least one professional education course with a grade of C or better



- B. Complete a speech and hearing screening. This screening is given once every semester—dates and times are posted. While it is preferred you have the screening when applying for program admission, it will not keep you from program admission IF you have completed the other entrance requirements. You may complete the speech and hearing screening the next semester.
- C. ACT 33/151, ACT 34, and FBI clearances are required for program admission. **Forms are available online.**
- D. PRAXIS I Tests: Complete and meet state-mandated minimum scores (PASS) on the following PRAXIS I tests: Pre-Professional Skills: Reading, Writing, and Mathematics.
- E. Removal of any academic, physical, or mental deficiencies noted at any point in the student's program that would prevent the candidate from fulfilling the responsibilities of the certification area.
- F. Possession of a **QPA—specific to the student's major** at the time of application.
- G. Two (2) college-level English courses are required: ENG 111 (Composition) and one literature course (complete before program admission).
- H. Two (2) college-level math courses are required by all majors. The required math competency (listed below) and a higher-level math course. ****Mid-level and early childhood majors must meet the math requirements of MATH 111 and MATH 211 with a grade of C or higher and before program admission.**

MAJOR**MATH REQUIREMENT**
(two college-level MATHs required)

Mid-level and Early Childhood and (Prerequisite for any DUAL certification which includes Early Childhood).....	MATH 111, 211
Speech Pathology and Audiology	MATH 112 or higher + MATH 221 or PSY 230
Special Education.....	MATH 111 + 1 higher level
Rehabilitative Sciences	MATH 112
Library Science	MATH 112 + 1 higher level
Music Education (K-12)	MATH 112 + 1 higher level
Secondary Education:	
English, French, Spanish, Social Studies	MATH 112 + 1 higher level
Biology, Earth and Space Science.....	MATH 171 + 1 higher level
Chemistry	MATH 270, MATH 271
General Science	MATH 171, MATH 221 or 321
Mathematics.....	CIS 163
Physics	MATH 270 +1 higher level

PLEASE NOTE:

MATH 010 or MATH 050 does not count toward General Education requirements or toward graduation.

MATH 110 does not satisfy math requirement for education majors. It counts ONLY under Liberal Education Electives. It does not count as the second required college-level math course.

Elementary and early childhood majors must meet the math requirements (MATH 111 and MATH 211) with a grade of C or higher before taking ELED 324.

ALL students must complete both English requirements, both mathematics requirements, and CMST 113 (Public Speaking) with at least a grade of C prior to student teaching/internship.

Transfers and readmits must also meet the above requirements, but will be treated on a case-by-case basis.

III. Retention in a program

- Maintenance of required cumulative QPA.
- Attainment of a grade of C or higher in all required professional courses and all required courses (including content competency courses and proficiency courses in secondary) in major areas.
- Removal of any academic, physical, or mental deficiencies identified after admission to program before being permitted to continue in the program.
- Completion of all program requirements.

IV. Qualifications for student teaching/internship/externship

- Completion of 90 semester hours of university credit in designated program, including all teaching methods courses.
- PRAXIS II (Content Knowledge and Specialty Tests). Student teachers must provide verification of PRAXIS II tests being passed before graduation.

- A grade of C or higher in all required professional courses and all required major courses in area. Mid-level and early childhood majors must also have C or higher (or equivalent) in content competency courses and 11-credit emphasis courses.
- An overall cumulative QPA of 3.00.
- Satisfactory completion of all tests and clearances (Criminal Record, Child Abuse, and FBI) necessary for field placement.

V. Graduation requirements

- Fulfillment of all university standards for graduation.
- An overall appropriate cumulative QPA.
- A grade of C or higher in all required professional courses and all required courses in major area. In addition, content competency courses in mid-level and early childhood. All proficiency courses also require a C or higher or equivalent.

VI. Pennsylvania certification requirements at Clarion University

- Complete admission, legal, and medical requirements
 - First year
 - Complete all clearances
 - Act 33/151
 - Act 34
 - FBI clearance
 - Complete a physical exam and a TB (Mantoux) test through campus health center
 - Teacher certification students must complete at least one professional education course with a grade of C or better
 - Pass the appropriate examinations (in effect at the time the tests are completed) required by the Pennsylvania Department of Education. All Pre-K-4, Mid-level 4-8, Pre-K-8 Special Education, and K-12 majors (library science, music, and modern language) are also required to take:
 - Fundamental Subjects—Content Knowledge
In addition, all majors take:
 - Specialty Area Exam(s)
 - Complete application for certification.
 - Certify U.S. citizenship or hold an immigrant visa which permits employment within the United States and declares an intent to become a U.S. citizen.
 - Certify no habitual use of narcotic drugs in any form or excessive amounts of intoxicating beverages and not be under indictment nor have a conviction for a criminal offense.
 - Provide verification of a valid health examination (within one year) and negative tuberculin test (within two years) at the date the application is processed.
 - Receive recommendation for certification from the dean, College of Education and Human Services.



FINANCIAL INFORMATION

Please refer to the Clarion University Student Accounts webpage at www.clarion.edu/finaid/ for current costs of attending Clarion University and billing/payment information

Financial Assistance

Kenneth Grugel, M.A., Director

104 Egbert Hall

Telephone: 814-393-2315

E-mail address: aidoffice@clarion.edu

Website: www.clarion.edu/finaid

Financial assistance is available to students in the form of scholarships, grants, loans, and employment. Detailed information and necessary application forms may be secured from the Office of Financial Aid. Because the determination of eligibility is based on an analysis of a current Needs Analysis Application, students are encouraged to file a Free Application for Federal Student Aid (FAFSA) application and designate Clarion University to receive a copy of that form. The applications are available at www.fafsa.ed.gov or by calling 800-4-FED-AID (800-433-3243).

Academic Year

At Clarion University, an academic year is comprised of a Fall and Spring semester during which time a full-time student is expected to complete 24 credits. The period of time school is in session consists of 30 weeks of instruction.

Grants, Loans, and Employment

Pennsylvania and Federal Grants

FEDERAL PELL GRANT—The “basic” need-based federal grant is the Pell Grant. Pell grants are based on financial need as determined by federal methodology.

FEDERAL TEACH GRANT—A federal grant providing up to \$4,000 per year to students who intend to teach in a high need field (bilingual education, foreign language, mathematics, reading specialist, science, and special education) in a public or private elementary or secondary school that serves students from low-income families. Interested students should have a FAFSA on file (although financial need is not a requirement), and maintain a QPA of at least a 3.25. TEACH grants are available to undergraduate and graduate students. Recipients

of TEACH grants must teach for at least four academic years within eight calendar years of completing the program of study for which the TEACH grant was received. **IMPORTANT:** TEACH recipients who fail to complete the service obligation will have their TEACH Grants converted to interest-bearing (6.8 percent) Federal Direct Unsubsidized Loans. Interest will be charged from the day the grant was disbursed.

PHEAA STATE GRANT—The Pennsylvania state grant is need based as determined by PHEAA's methodology. PHEAA notifies students (who have filed a FAFSA) directly of their eligibility for the grant after May 1 of each year. (Students who are taking half or more of their credits on-line during any semester are NOT eligible for the Pennsylvania state grant).

Federal Family Education Loan Programs

FEDERAL PERKINS LOAN PROGRAM—The program provides for loans to students who have a demonstrated need for financial assistance and who are in good academic standing.

To be eligible, students must complete an application form, have a current FAFSA form on file in the Office of Financial Aid, be a citizen of the United States or have declared an intention to obtain citizenship, and be enrolled or accepted for enrollment as a student.

The loans, which are non-interest bearing while a student is enrolled, are available to a maximum of \$1,000 per year for undergraduates, with a \$15,000 aggregate limit for undergraduate students.

Repayment of the loan may extend over a 10-year period beginning nine months after graduation from Clarion. Repayments are to be made on a quarterly basis with interest accruing at the rate of five percent per year.

In specified teaching situations, as much as 15 percent of the loan may be canceled for each year of teaching. The borrower's obligation to repay the loan is canceled in the event of death or permanent and total disability.

FEDERAL DIRECT STAFFORD LOAN PROGRAM—Loans provide a maximum of \$5,500 per academic year for first-year students, \$6,500 for second-year students, and \$7,500 for third-, fourth-, and fifth-year students to a limit of \$31,000. Graduate students may apply for up to \$20,500 per academic year in loans. Loan applications are available from the U.S. Department of Education at <https://StudentLoans.gov>. Stafford Student Loans are based on need which must be demonstrated through an approved need analysis system. The approved form is the FAFSA application. Applications and detailed information may be secured from the financial institution from which a loan will be requested. An 8.25 percent capped rate of interest for new borrowers begins accruing six months after graduation or withdrawal, and repayment may extend over a 10-year period. Diplomas will be withheld for those who do not complete an exit interview.

FEDERAL DIRECT PARENT LOAN FOR UNDERGRADUATE STUDENTS (PLUS)—PLUS loans, which are not based on financial need, are available to parents up to the cost of education minus other aid. The loan has an adjustable rate of interest to a maximum of 9 percent, and repayment begins

60 days after receipt of the loan. <https://StudentLoans.gov>

CLARION UNIVERSITY REVOLVING LOAN FUND—This loan fund, for educational purposes only, is available to full-time undergraduate students in good standing. Loans may be granted to a maximum of \$300. The loans are interest-free for 60 days. Thereafter, a \$25 late fee is imposed. Application forms may be secured from the Office of Financial Aid.

Loan Repayment Chart (payback period=10 years)

Principal Amount Borrowed	Number of Monthly Payments	5% (Perkins Loan)		8.25% (Stafford and Consolidated Loans)	
		Payment	Total Interest	Payment	Total Interest
2,625	48	60	277	64	466
3,500	72	56	558	62	949
5,500	120	58	1,500	67	2,595
6,000	120	64	1,637	74	2,831
8,000	120	85	2,182	98	3,775
13,000	120	138	3,546	159	6,134
15,000	120	159	4,092	184	7,077
18,000	120	191	4,910	221	8,493
22,000	120	233	6,001	270	10,380
24,000	120	255	6,547	294	11,324

Employment

Employment on a part-time basis is available to the extent that funds are provided by the federal government and the Commonwealth of Pennsylvania. The assignment of students to part-time campus positions is generally based on financial need; however, it should be recognized that such employment will not be sufficient to meet the total expenses of attending Clarion. The current federal minimum wage is paid to on-campus student employees.

FEDERAL WORK-STUDY PROGRAM—The university participates in the Federal Work-Study Program, which permits eligible students to work while classes are in session. Eligibility requirements for employment include U.S. citizenship, demonstrated financial need as determined by a current Needs Analysis form, and satisfactory academic progress.



STATE EMPLOYMENT PROGRAM—Part-time positions are available under this program to students who are maintaining satisfactory academic progress. Many positions are limited to 15 hours of employment per week.

JOB LOCATION AND DEVELOPMENT PROGRAM (JLD)—Funding for the JLD program is received from the federal government under the College Work-Study Program and is designed to encourage the development of part-time, off-campus, employment opportunities for all Clarion students regardless of financial need.

Students employed under the Federal Work-Study Program and the State Employment Program must be enrolled at least half-time, i.e., six semester hours each semester, to remain eligible for the work program.

Conditions Which Accompany Financial Aid

In order to continue receiving financial aid following initial enrollment at Clarion University of Pennsylvania, students must meet certain conditions each year (or two consecutive semesters, if the student began during the Spring Semester, or if she or he stopped out). Students must be enrolled at least part-time (6 credits) and must reapply for aid using the FAFSA each year.

Full-time baccalaureate students may receive assistance from most federal Title IV programs for up to six years of attendance or 180 semester hours; and state aid programs for up to four years, providing they maintain “normal academic progress.”

Normal or satisfactory academic progress means that students must successfully complete 67 percent of attempted credits each academic year, including the summer, before they can regain federal financial assistance for the next school year.

Part-time students must also successfully complete 67 percent of attempted credits each academic year, including the summer, to regain aid the following year.

Graduate students both full-time and part-time, must successfully complete 67 percent of their attempted credits and also maintain a 3.0 QPA each academic year, including the summer, to regain aid eligibility the following year.

Students who fail to achieve a cumulative QPA of at least a 2.00, are normally placed on probation or suspension by the Office of Academic Affairs. If a student is suspended by the Office of Academic Affairs and appeals that decision, and is permitted to return to Clarion university, his or her federal financial aid will be reinstated, provided the student has earned 67 percent of attempted credits each academic year.

PHEAA grant recipients must successfully complete at least 24 new semester hours each year to be eligible to receive a state grant the following year.

Stafford Loan recipients can borrow at level 2 once they have earned 30 new semester hours; and at level 3 once they earned 60 credits.

Appeal Procedure

Students denied financial aid for any reason may appeal the denial as follows:

1. Write to the Office of Financial Aid, Clarion University, 840 Wood Street, Clarion, PA 16214-1232, noting the denial and stating the reasons why financial aid should not be denied. Example: A student may be denied aid because it appears he or she has fewer than 21 credits for the year. Perhaps during the summer at another institution the student has earned, for transfer to Clarion, credits which will fulfill the normal progress requirement but about which the university has not been informed. The student may present the appeal in person at the Office of Financial Aid in Egbert Hall instead of writing.
2. The Office of Financial Aid will review the denial in terms of information provided by the student.
3. Following the review, the Office of Financial Aid will report back to the student concerning the appeal.
4. If the student questions the decision of the Office of Financial Aid, an appeal may be made.

Refund Policy

Students receiving financial assistance from Clarion University are subject to the same refund policies as those who are not aid recipients.

Federal Title IV Regulations: If a recipient of Title IV funds (Pell grant, SEOG grant, or Stafford loan) withdraws from school after beginning attendance, a portion of the Title IV funds may have to be returned. Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of the Title IV funds that the student was originally scheduled to receive.

If a student withdraws before completing 60 percent of the semester, the percentage of Title IV funds earned is equal to the percentage of the semester completed. The university is required to return the unearned portion.

The percentage of payment period or term completed up to the withdrawal date divided by the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula: Aid to be returned = (100 percent of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period or term.

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, the institution would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student's withdrawal.

The institution must return the amount of Title IV funds for which it is responsible no later than 45 days after the date of the determination of the date of the student's withdrawal.

Refunds are allocated in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal Parent (PLUS) Loans
- Federal PELL grants
- Federal ACG/SMART
- Federal Supplemental Educational Opportunity Grant

If a student withdraws after completing 60 percent of the semester, the percentage of Title IV funds earned is 100 percent.

Students who withdraw after the semester begins or reduce their credit hour load should contact the Financial Aid Office to determine the impact on their financial aid awards.

Note: The university refund policy for tuition and fees is different from the Federal Title IV regulations.



Clarion University Undergraduate Student Scholarships

Sue McMillen, M.S., Scholarship Administrator

Admissions Building

Telephone: 814-393-2306

E-mail address: smcmillen@clarion.edu

Website: www.clarion.edu/scholarships

Clarion University's endowed, annual, and athletic scholarships provide support to more than 600 students yearly. Scholarships are available to new incoming students as well as currently enrolled students. The following information illustrates the many scholarship opportunities available to students attending Clarion University.

Most of Clarion's scholarships are funded by private support through the Clarion University Foundation, Inc., and are overseen by the Office of Scholarship Administration, within the Division of Enrollment Management. Clarion University's Scholarship web pages explain how students are considered for specific scholarship awards, i.e., via automatic consideration, scholarship committee, department decision, and so on. Please note deadlines and scholarship contact persons, when indicated, as well as certain preferences indicated by some donors.

A current list of Clarion University Scholarships can be found on the Web at www.clarion.edu/scholarships. Scholarships are organized on the Website under the following headings:

Student Scholarships: Search for scholarships for incoming students and current students; use this tool to find scholarships for specific majors.

Other scholarships for incoming freshmen: See a list of scholarships for incoming freshmen that do not specify a major as an eligibility requirement.

Other scholarships for current students: See a list of scholarships for current students that do not specify a major as an eligibility requirement.

Athletic Scholarships: See a list of scholarships available to athletes attending Clarion University.

Venango Campus Scholarships: See a list of scholarships for students attending Clarion University–Venango Campus; note: if you are a nursing major, click on the “Student Scholarships” link above to search for nursing scholarships for incoming freshmen and current students.



UNIVERSITY CURRICULA

How do you want to be different at the end of your time in college? The undergraduate educational journey will help you develop your intellectual skills, expand your knowledge, and help you clarify your values. All undergraduate curricula, with the exception of the two-year Associate of Science curriculum in Nursing, the Associate of Arts, and Associate of Science degrees, lead to a bachelor's degree and have a common core of 48 semester hours in general education. General education courses will complement the courses in your major to create an integrated educational experience. Careful consultation with your advisor will help you to create a coherent plan of study. Each course, as well as your co-curricular and extra-curricular experiences, can purposefully build toward reaching your goals of who you want to be when you graduate. Welcome to the Clarion journey.

Undergraduate education at Clarion University begins with course offerings and expands to co-curricular activities, student living arrangements, special cultural events at the university and in the larger community, and opportunities for relevant work through participation in assistantships, internships, undergraduate research, and student and community organizations. The university's curriculum enables you to acquire skills, knowledge and values necessary to attain your life's goals. We believe that you should graduate with a

distinguished level of ability and with attitudes necessary to continue developing and refining those abilities. Thus, as a student of Clarion, we will provide learning opportunities for you, so that when you graduate, you will be able to:

1. Reason effectively
2. Communicate effectively
3. Write effectively
4. Use information effectively
5. Use technology effectively
6. Know a natural scientific method for understanding the world
7. Effectively apply your knowledge of the natural sciences
8. Know a social scientific method for understanding the world
9. Effectively apply your knowledge of the social sciences
10. Know an artistic/humanistic method for understanding the world
11. Effectively apply your knowledge of the arts/humanities
12. Understand the value of and be respectful of diversity
13. Understand appropriate ethical and professional behavior
14. Know and appreciate the importance of wellness
15. Effectively apply your knowledge of wellness
16. Work independently and interact effectively with others.

General Education Distribution

Goals and Purpose

A Clarion University education provides students with both a specialized and a liberal education. A specialized education provides a student with depth of knowledge in a particular vocation, profession, academic discipline, or area of study. General education aims to assist the student's development of skills which apply to all career areas and disciplines, and development as a person and an informed citizen for life within and beyond the university.

Students have the freedom to select an academic major for their area of specialization and elective courses in which they are interested. The general education curriculum provides students with the opportunity to explore a variety of subjects and develop skills that not only serve their interests but community needs as well. Here is an outline of general education requirements:

General Education Requirements

- I. Liberal Education Skills (in writing, mathematics, and communication)—12 credit hours to include:
 - A. College writing and information literacy
 - B. A mathematics course
 - C. A selection of courses from academic support, computer information science, communication, elementary foreign language, English composition, logic, mathematics, and speech communication.
- II. Liberal Knowledge (about society, its individuals, culture, and environment)—27 credit hours distributed among three categories:

A. Physical and biological sciences	9 credits
B. Social and behavioral sciences	9 credits
C. Arts and humanities	9 credits

At least two disciplines must be represented within each of the three categories.
- III. Health and Personal Performance (with focus on wellness, creative activities, and use of leisure time)—three credits to include:

A. Health and wellness (one course)	2 credits
B. Personal performance (one course)	1 credit
- IV. General Education Electives (for further exploration of areas of interest and continued broadening of studies)—sufficient course work to bring the total for general education to 48 credits from an approved list in areas of skills or liberal knowledge. These may not be in your major, and only one additional hour of personal performance is permitted.

General Education Flags

Among the courses meeting requirements in both general education and the major, there are courses having “flags” or special designations.

These flags denote courses that address such practical qualities as the ability to understand and discuss values, to write effectively, to engage in quantitative reasoning, and to be information literate. You will need to be sure courses selected in general education and in the major show a total of six flags in the following categories:

In general education:

- * One first-year **Values Flag**—promotes reflections on personal values, interpersonal values, and societal values.
- * One **Basic Information Literacy Flag**—shapes ability to gather, access, and critically evaluate information. Usually fulfilled by first-year writing competency course.

In the major or general education:

- * A second **Values Flag**—encourages exploration in human values, applied values, or ethics in a particular context.
- * Two **Writing Intensive Flags**—engage in higher order reasoning and communication in specific disciplines. These two writing courses count for credit beyond general education as part of the total academic experience, either in the major or in support courses for the major.
- * A **Quantitative Reasoning Flag**—to develop skills associated with learning from data, quantitative expression, evidence and assertions, and quantitative intuition.
- * One **Applied Information Literacy Flag**—ability to use information to accomplish specific purposes, incorporate information into knowledge base and value system, and understand the legal and ethical issues of accessing and using information.

Students have the freedom to select the academic major and elective courses that are of interest. The general education curriculum provides the opportunity to explore a variety of subjects that not only serve student interests but community needs as well. Students may wish to consult the registrar website at www.clarion.edu/registrar for a list of courses that satisfy general education requirements.



COLLEGE OF ARTS & SCIENCES

Rachelle Prioleau, Ph.D., Dean

Office: 222 Founders Hall

Telephone: 814-393-2328

E-mail address: rprioleau@clarion.edu

Website: www.clarion.edu/artsci

Accreditations

American Chemical Society (ACS)—Degree Certification

College Reading and Learning Center (CRLC)

National Association of Schools of Art and Design
(NASAD)

National Association of Schools of Music (NASM)

Degree Listing

Anthropology (B.A.)

Anthropology (Minor)

Latin American and Caribbean Studies (Minor)

Art (B.A., B.F.A.)

Art (Minor)

Art History (Minor)

Graphic Design*

Biology (B.S.)

Ecology and Evolutionary Biology (minor),*

Environmental Biology (B.S.)

Medical Technology (B.S.)

Molecular Biology/Biotechnology (B.S.)

Chemistry (B.S.)
 Biochemistry*
 Chemistry (Minor)
 Chemistry/Business*
 Computer Information Science
 Computer Science (B.S.)
 Computer Science (Minor)
 Information Systems (B.S.)
 Information Systems (Minor)
 Economics (B.A.)
 Engineering Coop. Programs
 Engineering/Chemistry*
 Engineering/Mathematics*
 Engineering/Physics*
 English (B.A.)
 Literature (Minor)
 Creative Writing (Minor)
 Professional Writing and Rhetoric (Minor)
 Writing (Minor)
 Environmental Geoscience (B.S.)
 Film Studies (Minor)
 French (B.A., B.S.Ed.)
 French (Minor)
 Geography
 Geographic Information Science (Minor)
 Geography (Minor)
 Geography Sustainable Planning*
 Geology (B.S.)
 German (Minor)
 History (B.A.)
 Ancient Mediterranean Studies (Minor)
 Black Studies (Minor)
 History (Minor)
 Liberal Studies
 Communication
 Education*
 English*
 Geography and Sustainable Planning*
 Theatre*
 Women and Gender Studies*
 Writing*
 Mass Media Arts, Journalism, and
 Communication Studies (B.S.)
 Speech Communication (Minor)
 Mathematics (B.S.)
 Mathematics (Minor)
 Mathematics/Statistics (Minor)
 Military Science
 Leadership (Minor)
 Music
 Music (Minor)
 Philosophy (B.A.)
 Philosophy (Minor)

Physics (B.S.)
 Astrophysics*
 Nanotechnology (Minor)
 Physics (Minor)
 Environmental Sustainability: Science and Policy (Minor)
 Political Science (B.A.)
 Political Science (Minor)
 Psychology (B.A., B.S.)
 Psychology (Minor)
 Sociology (B.A.)
 Sociology (Minor)
 Social Work (Minor)
 Spanish (B.A., B.S.Ed.)
 Spanish (Minor)
 Theatre (B.A., B.F.A.)
 Acting* (Minor)
 Design/Technical Director*
 Musical Theatre*
 Technical (Minor)
 Women and Gender Studies* (Minor)

**academic concentrations*

The College of Arts and Sciences offers pre-professional advisement programs in the fields of business (pre-M.B.A.), engineering, law, medicine, dentistry, pharmacy, and veterinary medicine. The college cooperates in its engineering program with the Schools of Engineering at the University of Pittsburgh and Case-Western Reserve University in Cleveland.

The College of Arts and Sciences also cooperates with the Department of Library Science and the College of Education and Human Services to provide certification programs in library science and in secondary education which may be earned concurrently with a B.A. or B.S. degree.

The specific requirements of each of these programs are listed in the pages that follow. Additional information may be obtained from the dean or department chair. All B.A. programs require either second-year proficiency in a foreign language or an approved alternative as specified by each major.

Liberal Arts Degree Plus Teacher Certification

Liberal arts students can gain teacher certification in secondary education by taking required education courses and meeting the requirements for a teaching major. Course requirements leading to a B.A. or B.S., however, do not automatically satisfy the requirements for a teaching major and certification. Details are available in the Office of the Dean of the College of Education and Human Services.

Anthropology

Department of Anthropology, Geography, and

Earth Science, Anthony Vega, Ph.D., Chair

389 Science and Technology Center

Telephone: 814-393-2317

E-mail address: avega@clarion.edu

Website: www.clarion.edu/ages

Professor: Prezzano; **Associate Professor:** Occhipinti

Do you ever wonder what it means to be human? Anthropologists seek to answer this question by investigating the human condition in all times and all places. Human genetics, the origin of our species, the rise and fall of civilizations, world languages, and the wide diversities of peoples, cultures, and religions are just some of the topics you can explore through anthropology. This discipline is the broadest social science and is unique in its cross-cultural and holistic perspectives. The program offers courses in all four of the anthropological sub-disciplines: biological anthropology, anthropological linguistics, archaeology, and cultural anthropology.

A major in anthropology provides a firm basis for exploring careers in museums, aid agencies, business, government,

forensics, and teaching. Both majors and non-majors can take part in local and international field and laboratory experiences that provide the opportunity to contribute to current anthropological research. Completing the archaeological field school gives students hands-on experience in excavating an archaeological site. This course trains participants for immediate employment in public archaeology.

ANTHROPOLOGY, B.A. 33-51 credits

Required: ANTH 211, 213, 362, 380, and 21 additional credits in anthropology chosen in consultation with a departmental advisor. In addition to 30 credits in anthropology, the following courses are required: SOC 211, GEOG 100, and 15 additional credits chosen from biology, history, earth science, geography, or sociology. Students may choose either foreign language competency or quantitative methods core.

ANTHROPOLOGY, MINOR 18 credits

In addition to ANTH 211, anthropology students will complete nine credits of anthropology courses at the 300-level and an additional six credits of anthropology courses.

LATIN AMERICAN AND CARIBBEAN STUDIES, MINOR 18 credits

Required: 18 credits, chosen from a menu of interdisciplinary course. Courses must be chosen from at least two academic disciplines; at least nine credits must be at the 300- or 400-level.

Anthropology Courses

ANTH 211:	HUMANS AND CULTURE	3 s.h.
Introduces students to the nature of humanity and the human condition by exploring contemporary and past societies. Applies the four-field approach, emphasizing human diversity, origins of humans and culture, language, and archaeology. Each semester.		
ANTH 213:	INTRODUCTION TO BIOANTHROPOLOGY	3 s.h.
Surveys the human species in time, place, and culture, and investigates factors underlying human variation. Prerequisite: Anthropology or biology course. Alternate years.		
ANTH 214:	PRINCIPLES OF HUMAN ECOLOGY	3 s.h.
Examines the functional interrelationships of humankind and the biophysical environment. No prerequisite. Alternate years.		
ANTH 216:	WOMEN AND CULTURE	3 s.h.
Introduces the study of the lives of women in cross-cultural perspective. Explores gender issues including sexual division of labor, inequality, changing position of women in families, and the role of women in development. Alternate years.		
ANTH 218:	BURIED CITIES AND LOST CIVILIZATIONS	3 s.h.
Introduces students to archaeology and to what archaeologists do. Provides a long-term perspective on human history starting with the first archaeological sites over 2.5 million years old. Addresses some of the more popular theories about the prehistoric human past. Alternate years.		
ANTH/ENG 242:	INTRODUCTION TO AMERICAN FOLKLORE	3 s.h.
Provides an introduction to American folklore and its relationships to American literature. Introduces the major genres of American folklore, such as legend, talk, folk belief, song and ballad, and material folk culture; and various folk groups in America, such as occupational, gender, ethnic, age, regional, and their traditions. Analyzes examples of American literature and American popular culture through an examination of their American folk elements. Provides students with fieldwork experiences and methods of analysis of oral, customary, and literary traditions. No prerequisite. Fall, annually.		
ANTH 245:	PEOPLES AND CULTURES OF LATIN AMERICA	3 s.h.
Introduces the rich variety of ethnic groups and cultures of contemporary Latin America, including Central and South America. Topics include social structures, economic organization, gender roles, religion, political systems, ethnic identity, and globalization. Focus will be on indigenous peoples, with an emphasis on their role in national societies and the international economy. Alternate years.		
ANTH 250:	PREHISTORIC NORTH AMERICA	3 s.h.
Examines the development of North American Indian cultures from the beginning of human migration in the late Pleistocene to the coming of Europeans. Emphasizes human interrelationships with the various New World environments in time and space which led to the rise of prehistoric cultures, food production, trade, etc. No prerequisite. Alternate years.		
ANTH 251:	HISTORIC INDIANS OF NORTH AMERICA	3 s.h.
Surveys American Indians ethnographically. Explores cultural processes, historic events, and ecological adjustments to understand the diversity of Indian culture at the time of their discovery by Europeans. Considers American Indian acculturation and contemporary Indian issues. No prerequisite. Alternate years.		
ANTH 252:	CULTURES IN COLLISION: THE ANTHROPOLOGY OF CULTURE CONTACT	3 s.h.
Provides an anthropological perspective on the nature and consequences of culture contact between different societies. Focuses on contact between western and nonwestern cultures. Explores both historical and contemporary cultures. Alternate years.		

- ANTH 253:** *ARCHAEOLOGY OF EASTERN NORTH AMERICA* **3 s.h.**
Provides detailed survey of prehistoric developments in North America east of the Mississippi from Late Pleistocene to the Colonial Period. Familiarizes students with the prehistory of the Amerind populations in the area, including the gradual emergence of the Woodland pattern. On demand.
- ANTH/ENG 262:** *INTRODUCTION TO THE ENGLISH LANGUAGE* **3 s.h.**
Deals generally with the nature of language and specifically with the grammatical structures of modern English, its regional and social varieties, and certain highlights of its historical development. Each semester.
- ANTH 300:** *LABORATORY METHODS IN ARCHAEOLOGY* **3 s.h.**
Provides a hands-on overview of the major analytical methods in archaeology and a basic understanding of both the practical application of standard methodologies, and the questions archaeologists address. Prerequisite: ANTH 211. Alternate years.
- ANTH 315:** *ENDING POVERTY* **3 s.h.**
Introduces the field of development anthropology, including its applied aspects. Explores the history of development theory; models of cultural change; contemporary issues of poverty and globalization; models of program design. Provides students with a practical background in project design, assessment, and management. Alternate years.
- ANTH/ENG 352:** *TOPICS IN FOLKLORE* **3 s.h.**
Provides intense study of one or more aspects of folklore study. Focuses on one or more folk groups, a particular folk genre, folklore and popular culture, or folklore and literature. Offers students a fieldwork experience—collection, transcription, classification—and methods of analyzing of oral traditions. No prerequisite. Every third semester.
- ANTH 357:** *AZTEC, INKA, AND THEIR ANCESTORS* **3 s.h.**
Surveys Indian cultures from the beginnings in the Late Pleistocene to the coming of the Conquistadors. Emphasizes cultural developments, the rise of states, native agriculture, and the development of arts and crafts, including architecture and ceremonial art. No prerequisite. Alternate years.
- ANTH 361:** *WITCHCRAFT, MAGIC, AND RELIGION* **3 s.h.**
Provides cross cultural comparative analysis of human environment with the supernatural. Explores the role of religion and theories dealing with the nature and function of various aspects of supernaturalism from an anthropological perspective. No prerequisite. Alternate years.
- ANTH 362:** *HISTORY AND METHODS OF ANTHROPOLOGY* **3 s.h.**
Provides a general overview of the history of anthropology as an academic discipline, combined with a survey of anthropological theory and research methods. Alternate years.
- ANTH 363:** *HISTORICAL ARCHAEOLOGY* **3 s.h.**
Provides an introduction to the problems and methods of historical archaeology with special emphasis on North America. Usually to be taken in conjunction ANTH 253: Archaeology of Eastern North America.
- ANTH 364/ENG 353:** *AMERICAN VOICES* **3 s.h.**
Provides an introduction to American dialectology and sociolinguistics. Emphasizes the great diversity and vitality of American English. Covers the causes and mechanisms of linguistic changes, the role of language differences in society, and the relevance of dialectology to language teaching. Pays special attention to the regional speech patterns of Pennsylvania. No prerequisite. On demand.
- ANTH 375:** *ARCHAEOLOGICAL FIELD SCHOOL* **1-9 s.h.**
Provides undergraduates with a practical and technical background in modern archaeological research. Includes an introduction to cultural contexts. Covers all phases of field investigation, including site reconnaissance, site survey and testing, site mapping, controlled excavation, specimen recovery techniques, and information regarding procedures. Includes laboratory methods such as catalog and preservation procedures. Every summer to every other summer.
- ANTH 376:** *ADVANCED ARCHAEOLOGICAL FIELD SCHOOL* **1-9 s.h.**
Provides students with additional training in archaeological field methods. Students obtain supervisory skills and experience in site interpretation and report writing. Students will learn applied archaeological (Culture Resources Management) field techniques. ANTH 376 is offered concurrently with ANTH 375. Prerequisite: ANTH 375. Every summer to every other summer.
- ANTH 380/ENG 380:** *LANGUAGE AND CULTURE* **3 s.h.**
An introduction to linguistic anthropology. Focuses on the main areas of intersection between language and culture. Topics may include: animal communication systems, primate language studies, the evolution of language, linguistic diversity, linguistic relativity (a.k.a. the Sapir/Whorf Hypothesis), language endangerment and revival, nonverbal communication, linguistic field methods, ethnopoetics, sociolinguistics, language and identity, language and gender, and the ethnography of speaking. From an examination of such topics, students will learn to see how people use language to create and maintain their cultures, and to recognize the ways in which language itself influences human thought and behavior.
- ANTH 400:** *INDIVIDUAL RESEARCH* **1-9 s.h.**
Allows students to develop their approach to a specific problem, by conducting individual research defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students expected to acquire research techniques in dealing with their topics. All branches of anthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project advisor and the departmental chair. Prerequisite: ANTH 211. On demand.
- ANTH 425:** *FIELD SCHOOL IN CULTURAL ANTHROPOLOGY* **1-9 s.h.**
Provides students with field experience in cultural anthropology. Emphasizes practical, first-hand experience of ethnographic fieldwork. Focus is on research design, qualitative methodology, and communicating results of research. Prerequisites: At least six credits in anthropology, or permission of instructor. Every other year.
- ANTH 426:** *SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY AND ARCHAEOLOGY*
Focuses on a single topic of interest in archaeology and/or biological anthropology. Course content varies. Topic will be announced in advance. Prerequisite: ANTH 211 or permission of instructor.
- ANTH 427:** *SPECIAL TOPICS IN CULTURAL ANTHROPOLOGY*
Focuses on a single topic of interest in cultural and/or linguistic anthropology. Course content varies. Topic will be announced in advance. Prerequisite: ANTH 211 or permission of instructor.

ANTH/ENG 457: INTRODUCTION TO LINGUISTICS

3 s.h.

Presents key concepts and basic analytical procedures common to many contemporary linguistics theories. Covers phonetics and phonology, morphology, and syntax in detail. Analyzes the integration of these sub-systems in the overall design of a generative grammar. Prerequisite: ANTH/ENG 262. Fall, annually.



College of Arts and Sciences

Art

Department of Art, Melissa Kuntz, M.F.A., Chair

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 E-mail address: mkuntz@clarion.edu
 Website: www.clarion.edu/art

Professor: Joslyn

Associate Professors: Colvin-Woodruff, Franchino, Kuntz

Assistant Professors: Clark, Greenberg, Rose

Are you a problem-solver? Do you imagine what hasn't been? Do you want to give form to your ideas? You may be an artist! Or perhaps you would just like to learn more about art in order to visit museums, start a collection, improve your visual literacy, or broaden your understanding of the world and its possibilities. Art is about all of these things. Living in a culture where you're deluged with images and where visual communication is increasingly important, it's more critical than ever to understand how and why art affects the viewer.

The Clarion University Art Department boasts a diverse collection of faculty with a broad range of backgrounds and interests. The department's small student-faculty ratio ensures that you receive individual attention, and co-curricular professional opportunities are available through internships and employment in the department. Through art, learn to use your imagination, ambition, and talent to realize your ideas and become a citizen in a visual world.

- ART, B.A.**51 credits
Required: ART 121, 124, 125, 126; ART 222 and 12 additional credits of 200-level ART courses; six credits of 300-level ART courses; ART 491 and three additional credits of 400-level ART courses; ARTH 110, 111; six additional credits in art history (one of which must be ARTH 414 or a special topics course on contemporary art); foundation review; progress review; portfolio review; and foreign language competency.
- ART, B.F.A.** 72 credits
Required: ART 121, 124, 125, 126, ART 222 and 18 additional credits of 200-level ART courses; 15 credits of 300-level ART courses; ART 491 and six additional credits of 400-level ART courses; ARTH 110, 111; nine additional credits in art history (one of which must be ARTH 414 or a special topics course on contemporary art); foundation review; progress review; exhibition review.
- ART, B.F.A. WITH CONCENTRATION IN GRAPHIC DESIGN** 72 credits
Required: ART 121, 124, 125, 126, ART 222, 250 and 15 additional credits of 200-level ART courses; ART 350, 351, 355 and six credits of 300-level ART courses; ART 491; six credits of ART 451 or three credits of 451 and three credits of 455; ARTH 110, 111; nine additional credits in art history (one of which must be ARTH 414 or a special topics course on contemporary art); foundation review; progress review; portfolio review.
- ART, MINOR**21 credits
Required: two of the following: ART 121, 124, 125, 126; nine additional credits in ART; ARTH 110; three additional credits in ARTH.
- ART HISTORY, MINOR** 18 credits
Required: ARTH 110,111; nine additional credits in ARTH; three credits in ART.

Art Courses

- ART 110: THE VISUAL ARTS** **3 s.h.**
Introduces art appreciation. Deals with the form and content of art as well as the processes and products of art. Enriches the student's awareness and understanding of visual art forms. Each semester.
- ART 121: FOUNDATION DRAWING** **3 s.h.**
Develops the drawing skills of students. Emphasizes observation, analysis, basic pictorial composition, and spatial organization. Students draw primarily from direct observation, exploring a variety of drawing media, processes, and attitudes. Required of all art majors. Each semester.
- ART 124: DIGITAL ART FOUNDATION** **3 s.h.**
Introduces students to basic computer software and hardware related to the creation, documentation and presentation of art. The course looks at digital media as an investigative and creative tool in art and design, and as a method of communication. Each semester.
- ART 125: COLOR AND DESIGN** **3 s.h.**
A study of two-dimensional design concepts and their applications. Emphasizes the principles and elements of design. Required of all art majors. On demand.
- ART 126: THREE-DIMENSIONAL DESIGN** **3 s.h.**
Explores three-dimensional design forms to gain a deeper understanding of the elements and principles of design. Required of all art majors. Each semester.
- ART 211: SURVEY OF ANCIENT THROUGH MEDIEVAL ART** **3 s.h.**
Surveys the art and architecture of the western world from prehistory to the Proto-Renaissance. Fall semester and on demand.
- ART 212: SURVEY OF RENAISSANCE THROUGH MODERN ART** **3 s.h.**
Surveys the art and architecture of Europe and America from the Renaissance to the present. Spring semester and on demand.
- ART 215: AFRICAN TRADITIONS IN ART** **3 s.h.**
Introduces traditional sculpture, masks, crafts, and other arts of selected Sub-Saharan African groups, and African American artists. Develops students' understanding of the meaning and cultural context of the art through hands-on experience in related art processes and a required museum trip. On demand.
- ART 216: WOMEN IN ART** **3 s.h.**
Explores the achievements of women artists; images of women in art; the role of women in art history, theory, and criticism; and the museum and gallery environments as they relate to women. On demand.
- ART 217: LATIN AMERICAN ART** **3 s.h.**
An introduction to selected art traditions in the Spanish and Portuguese and French-speaking western hemisphere, including ancient, medieval, and contemporary examples. Contributions of native African, European, and other cultures will be considered.
- ART 222: DRAWING CONCEPTS** **3 s.h.**
Continues exploration of a variety of drawing media and techniques in order to solve more complex pictorial and spatial problems. Encourages development of individualized responses. Prerequisites: ART 121. Annually.
- ART 224: FIGURE DRAWING** **3 s.h.**
Develops students' knowledge of human anatomy. Emphasizes an intuitive approach to recording the figure. Students work directly from the skeleton and models, analyzing the figure, and exploring a variety of media and pictorial problems. Annually.
- ART 228: INTRODUCTION TO JEWELRY** **3 s.h.**
Design and construction of individual pieces of jewelry from various metals, semi-precious stones, exotic woods, and other materials. Deals with soldering, casting, supplemental techniques, and various methods of fabricating jewelry. Annually.
- ART 230: INTRODUCTION TO CERAMICS** **3 s.h.**
Students design and construct clay pieces in varied techniques and approaches. Includes basic clay and glaze technology, ceramic history, hand building, throwing, turning, and firing processes. Each semester.
- ART 240: INTRODUCTION TO WEAVING AND FABRIC DESIGN** **3 s.h.**
This course provides an introduction to the history, theory, and practice of textile design. Through group and individual projects, demonstrations, lectures, and readings, students will learn several traditional textile construction and design techniques, and they will gain an understanding of textile art history. Each semester.
- ART 250: INTRODUCTION TO GRAPHIC DESIGN** **3 s.h.**
Introduces graphic design, typography, and computer graphic modes and functions. Focuses on state-of-the-art industry software and creativity. Prerequisite: ART 124, 125. Fall semester annually.
- ART 260: Introduction to Painting** **3 s.h.**
Introduction to oil painting. Students explore basic materials and techniques of painting. Stresses fundamentals of pictorial organization and visual expression; includes introduction to Contemporary and Art Historical painting. Prerequisite: ART 121 or 125. Each Semester
- ART 270: INTRODUCTION TO PRINTMAKING** **3 s.h.**
This course provides an introduction to the history, theory, and practice of printmaking. Through group and individual projects, demonstrations, lectures, and readings, students will learn several traditional printmaking techniques, and they will gain an understanding of printmaking history as well as critical theory that surrounds the medium. Prerequisite: ART 121. Annually.
- ART 280: INTRODUCTION TO SCULPTURE** **3 s.h.**
Studio course offers experiences in conceiving and creating three-dimensional sculptural forms in a variety of media with a variety of techniques. Each semester
- ART 300: SPECIAL TOPICS IN ART**
Topics of interest in various areas of art. The instructor selects the format. Offered when faculty are available.

- ART 330: INTERMEDIATE CERAMICS** **3 s.h.**
 This course facilitates the refinement of hand building techniques and throwing skills in conjunction with formal and conceptual considerations. Clay body formulation and glaze calculation, development and testing are introduced while experience is gained in firing various kiln types. Emphasis is placed on continuing aesthetic and technical development and the ability to critically evaluate and individualized approach to form, function and content. Prerequisite: ART 230. Each semester.
- ART 340: INTERMEDIATE WEAVING AND FABRIC DESIGN** **3 s.h.**
 This course offers students the opportunity to discover the possibilities of textile media as a viable contemporary practice. Print, dye, woven, and off-loom techniques will be taught. Through group and individual projects, demonstrations, lectures, and readings, students will be asked to consider the varied potential of textile art for visual communication. Prerequisite: ART 240. Annually.
- ART 350: INTERMEDIATE GRAPHIC DESIGN - TYPOGRAPHY I** **3 s.h.**
 Continues exploring layout, typography, and computer graphics. Students build on the skills and knowledge acquired from Introduction to Graphic Design to produce a professional portfolio. Emphasizes advanced computer software techniques and typography. Prerequisite: ART 250. Fall semester annually.
- ART 351: INTERMEDIATE GRAPHIC DESIGN II - PHOTOGRAPHY** **3 s.h.**
 This course incorporates all previous knowledge acquired in Introduction to Graphic Design and Graphic Design I. Coursework is based on student-initiated projects, independent research, and professional development. Students are expected to be self-motivated and capable of working in an interdisciplinary and mature fashion. Prerequisite: ART 350. Spring semester annually.
- ART 355: ILLUSTRATION** **3 s.h.**
 Entry-level studio course introduces students to a variety of drawing and painting media. Industry standard computer software is also taught. Encourages utilization of the principles of design, creative problem solving, and the integration of illustrations into media. Prerequisite: ART 224. Spring semester annually.
- ART 360: INTERMEDIATE PAINTING** **3 s.h.**
 Encourages integration of conceptual concerns and thematic focus in painting. Experimentation with subject and materials; Working toward developing a personal aesthetic direction in relation to Contemporary art. Regular critiques and assignments. Prerequisite: ART 260. Each Semester
- ART 370: INTERMEDIATE PRINTMAKING** **3 s.h.**
 This course offers students the opportunity to discover the possibilities of print media as a viable contemporary practice. Students will explore ways that photographic, mechanical and electronic tools have influenced both artistic production and the dissemination of art. Through group and individual projects, demonstrations, lectures, and readings, students will be asked to consider the varied potential of the two-dimensional multiple for visual communication, Screenprinting, photo-lithography, photo-etching, and transfer/copier processes are introduced. Prerequisite: ART 270. Annually.
- ART 380: INTERMEDIATE SCULPTURE** **3 s.h.**
 This course introduces students to a variety of sculptural materials, methods, and concepts as a viable contemporary practice. Coursework and projects produced are self-governed with a strong focus on artistic value, conceptual clarity, and cultural and art historical contexts. Through group and individual projects, demonstrations, lectures, and readings, students will be asked to consider the varied potential of sculptural form. Prerequisite: ART 280. Annually.
- ART 414: TOPICS IN CONTEMPORARY ART** **3 s.h.**
 Introduces contemporary art and theory, covering art and artists from the 1950s to the present. Deals with the conceptual issues facing today's artists and introduces the main currents in critical theory. The course is aimed at students who have a strong interest in contemporary art, are interested in recent critical theory and its applications in visual art, or are artists or other students in the humanities planning to attend graduate school.
- ART 431: ADVANCED CERAMICS** **3 s.h.**
 This course facilitates the development self-directed research and explorations, focusing on the creation and refinement of a cohesive body of work reflection an individualized aesthetic based on the technical competency to actualize, the critical insight to evaluated, the verbal and writing skills to articulate, and the facility to professionally exhibit and document. Prerequisite: 6 cr. Hrs. of ART 330. Each semester.
- ART 441: ADVANCED WEAVING AND FABRIC DESIGN** **3 s.h.**
 This course offers students the opportunity to further explore the possibilities of constructed and printed/dyed textile media as a viable contemporary practice. Coursework is based on student-initiated projects, independent research, and professional development. Students are expected to be self-motivated and capable of working in an interdisciplinary and mature fashion. Prerequisite: ART 340. Annually.
- ART 451: ADVANCED GRAPHIC DESIGN** **3 s.h.**
 This course incorporates all previous knowledge acquired in Introduction to Graphic Design, Graphic Design I and Graphic Design II. Coursework is based on student-initiated projects, independent research, and professional development. Students are expected to be self-motivated and capable of working in an interdisciplinary and mature fashion. The goal is a professional digital and hard-copy portfolio. Prerequisite: ART 351. Each semester.
- ART 452: ADVANCED ILLUSTRATION** **3 s.h.**
 Advanced studio course using a variety of drawing and painting media and industry standard computer software. Encourages utilization of the principles of design, creative problem solving, and the integration of illustrations into media to create a professional portfolio. Prerequisite: ART 355. Spring semester annually.
- ART 461: ADVANCED PAINTING** **3 s.h.**
 Integrating conceptual concerns and thematic focus in painting and working toward a personal aesthetic direction in relation to Contemporary art in preparation for BFA Exhibition. Regular critiques and assignments. Prerequisite: ART 360. Each Semester

ART 471: ADVANCED PRINTMAKING**3 s.h.**

This course offers students the opportunity to further explore the possibilities of print media as a viable contemporary practice. Coursework is based on student-initiated projects, independent research, and professional development. Students are expected to be self-motivated and capable of working in an interdisciplinary and mature fashion. Prerequisite: permission of instructor. Annually.

ART 481: ADVANCED SCULPTURE**3 s.h.**

This course offers students the opportunity to expand on a variety of sculptural materials, methods, and concepts as a viable contemporary practice. Coursework and projects produced are self-governed with a strong focus on artistic value, conceptual clarity, and cultural and art historical contexts. Prerequisite: permission of instructor. Annually.

ART 491: SENIOR SEMINAR**3 s.h.**

This course involves preparation, research, proposal development, and studio exploration for the senior B.F.A. Exhibition requirement or B.A. capstone project. Students will have the opportunity to present their research and artwork for discussion and critique in a group environment. Focus will be placed on the preparation of a comprehensive portfolio, and forming a statement that incorporates understanding one's work in relation to current works by mature artists. Fall semester annually.

Art History Courses**ARTH 110: THE VISUAL ARTS****3 s.h.**

Introduces art appreciation. Deals with the form and content of art as well as the processes and products of art. Enriches the student's awareness and understanding of visual art forms. Each semester.

ARTH 111: SURVEY OF WORLD ART**3 s.h.**

Surveys art and architecture from around the world in its cultural context. Each semester.

ARTH 211: SURVEY OF ANCIENT THROUGH MEDIEVAL ART**3 s.h.**

Surveys the art and architecture of the western world from prehistory to the Proto-Renaissance. Fall semester and on demand.

ARTH 212: SURVEY OF RENAISSANCE THROUGH MODERN ART**3 s.h.**

Surveys the art and architecture of Europe and America from the Renaissance to the present. Spring semester and on demand.

ARTH 215: AFRICAN TRADITIONS IN ART**3 s.h.**

Introduces traditional sculpture, masks, crafts, and other arts of selected Sub-Saharan African groups, and African American artists. Develops students' understanding of the meaning and cultural context of the art through hands-on experience in related art processes and a required museum trip. On demand.

ARTH 216: WOMEN IN ART**3 s.h.**

Explores the achievements of women artists; images of women in art; the role of women in art history, theory, and criticism; and the museum and gallery environments as they relate to women. On demand.

ARTH 217: LATIN AMERICAN ART**3 s.h.**

An introduction to selected art traditions in the Spanish and Portuguese and French-speaking western hemisphere, including ancient, medieval, and contemporary examples. Contributions of native African, European, and other cultures will be considered. On demand.

ARTH 411: MODERNISM: ART FROM 1850 TO 1950**3 s.h.**

Surveys art and architecture of Europe and the United States between 1850 and 1950, its historical and cultural context, and its connection to concepts of modernity. Prerequisite: Sophomore Standing. Fall semester, every two years.

ARTH 412: CHANGING TIMES: ART OF THE SIXTIES**3 s.h.**

Surveys the art of the sixties, its historical and cultural context. Prerequisite: Sophomore Standing. Offered Spring Semester Every two years.

ARTH 414: CONTEMPORARY ART**3 s.h.**

Introduces contemporary art and theory, covering art and artists from the 1950s to the present. Deals with the conceptual issues facing today's artists and introduces the main currents in critical theory. The course is aimed at students who have a strong interest in contemporary art, are interested in recent critical theory and its applications in visual art, or are artists or other students in the humanities planning to attend graduate school. Prerequisite: Sophomore Standing. Fall semester, every two years.

Biology

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 Website: www.clarion.edu/biology

Professors: Barnes, Eggleton, Harris, D. Smith, Turner

Associate Professor: Bennett, Keth

Assistant Professors: Boyden, Nix, Register, Scott

The Department of Biology offers students several degree options depending on interest and long-term career goals. Four Bachelor of Science degrees are offered: biology, environmental biology, medical technology, and molecular biology/biotechnology. The major requirements for all degrees are similar in the first two years, allowing students to switch between degree options and to readjust career objectives. All degrees are designed to prepare the student for success in the job market or pursuing advanced studies. For those students interested in a career in teaching, the Biology Department offers a secondary education—biology degree and a secondary education—general science degree through the Department of Education. Also available is a Teaching Certificate in Environmental Education for grades K–12. The Biology Department programs prepare students for a variety of health careers including pre-medical, pre-veterinary, pre-chiropractic, and pre-dental. The necessary training to pursue other careers in the health sciences is also available through the Pre-Professional Program. Students more interested in ecology may choose the ecology and evolutionary biology concentration within the biology B.S. degree. Three minors, two in biology, with options in either cellular/organismal biology or ecology/evolutionary biology, and one in biotechnology are available to non-majors interested in a more in-depth study of these aspects of biology. There is also an opportunity for students to continue their education within the Biology Department by pursuing a Master of Science degree in biology. There are thesis and non-thesis options as well as an environmental science concentration offered cooperatively through both the Department of Biology and the Department of Anthropology, Geography, and Earth Science (AGES). Whatever the degree or interest, the faculty in the Biology Department are committed to helping students reach their professional goals.

BIOLOGY, B.S.53-69 credits

Required: BIOL 155/165, 156/166, 201, 202, 203, 382, and five courses (15 to 20 credits) from approved biology electives at the 300 level or higher. In addition to these 35 to 41 credits in biology, the following supplemental courses are required: MATH 221 or 222 or BIOL 402, and MATH 260 or 270; CHEM 153, 163, 154, 164, 251, 252, 261, 262 and one additional chemistry elective, excluding CHEM 205 and 211; in some instances, students may be advised to substitute CHEM 151, 161, 152, and 162 for CHEM 153, 163, 154, and 164; PH 251 and 252, or PH 258, 259, 268 and 269.

ENVIRONMENTAL BIOLOGY, B.S.56-72 credits

Required: BIOL 155/165, 156/166, 201 or 341, 202, 405, 493 or 494. A three-credit field experience competency is required, which can be fulfilled by taking a course at an approved field station or



by completing one of the following: ANTH 375, BIOL 410 or 499, COOP 308/408, or ES 455. Also required are 12 to 16 credits of electives selected from the following: BIOL 305, 306, 307, 341, 382, 400, 402, 411, 425, 427, 428, 432, 440, 451, 452, 456, 459, 460, 470, 471, 473, 477, 492, 493, 494, 497, 499; ENVR 475; COOP 308/408; ES 400, 425, 470; ANTH 375. In addition to these 36 to 41 credits in environmental biology, the following supplemental courses are required: MATH 171 (or MATH 260 or 270), 221 or 222 or BIOL 402, ES 150, 260, 280 or 330, 400, or 470; CHEM 153, 154, 163, 164, 251/261 or 254/264, 351/361 or 353/363 or 358/368. In some instances, students may be advised to substitute CHEM 151, 161, 152, and 162 for CHEM 153, 163, 154, and 164.

MOLECULAR BIOLOGY AND BIOTECHNOLOGY, B.S. ...60-71 credits

Required: BIOL 155/165, 156/166, 201, 203, 341, 450, 483, 485, 495, and nine to 12 credits from approved biology electives. In addition to these 41 to 44 credits in biology, the following supplemental courses are required: MATH 221 or 222 or BIOL 402, and MATH 260 or 270; CHEM 153, 163, 154, 164, 251, 261, 252, 262, 453, 463; in some instances, students may be advised to substitute CHEM 151, 161, 152, and 162 for CHEM 153, 163, 154, and 164; PH 251 or 252 or PH 258, 259, 268, and 269.

MEDICAL TECHNOLOGY, B.S.62-70 credits

The Medical Technology Program includes an academic preparation of three years (88 semester hours including general education) at Clarion and a 12-month course of clinical study in a hospital-based school of medical technology accredited by the National Accrediting Agency for Clinical Laboratory Sciences, (NAACLS), (32 semester hours). Upon successful completion of two years of prescribed courses at Clarion, the student is eligible to apply for admission to the hospital school. Although application is made through the office of the coordinator of medical technology at Clarion, acceptance is at the discretion of the staff of the clinical school. Clinical school spaces are limited, and admission to the Medical Technology Program at Clarion does not guarantee admission to the clinical school year. Clarion University maintains affiliations with six clinical schools; students may apply to accredited, non-affiliated schools, also. After graduation from Clarion University the student is eligible to take any of several certification examinations. Successful completion of the exam permits practice of the profession in most of the United States. A few states require a state examination for licensure. Further information on the exams can be obtained from



the coordinator of medical technology. The following courses are required during the three years at Clarion: BIOL 155, 156, 165, 166, 201, 203, 341, 444; CHEM 153, 163, 154, 164; eight additional hours of chemistry chosen from CHEM 251, 252, 261, 262, 353, 358, 363, 368, and BCHM 453, 463; either BIOL 203 or BCHM 453; and MATH 171, and 221 or 222. Substitutions for the above courses must be approved in writing by the coordinator of medical technology. Students in the program must maintain the following QPAs: first-semester freshmen, 2.0 overall; second-semester freshmen and first-semester sophomores, 2.5 overall; thereafter 2.5 overall with a 2.5 in the natural sciences. Exceptions to these requirements must be approved by the coordinator of medical technology. Specific information about courses, standards, and requirements established by the affiliate hospital schools are provided to enrolled students by the coordinator of medical technology. Students wishing to transfer into the program must be approved by the coordinator of medical technology and must plan to spend two years on the Clarion Campus. Hospital affiliates are Altoona Hospital, Altoona, Pa.; Williamsport Hospital, Williamsport, Pa.; Saint Vincent Health Center, Erie, Pa.; Guthrie Health Systems, Sayre, Pa.; Conemaugh Health System, Johnstown, Pa.; Women's Christian Association Hospital, Jamestown, N.Y.; Rochester General Hospital, Rochester, N.Y.; and New York Methodist Hospital, Brooklyn, N.Y.

SECONDARY EDUCATION, B.S.ED.

Certification for grades K-12, Biology (see under Secondary Education, Biology), page 155.

ECOLOGY AND EVOLUTIONARY BIOLOGY, CONCENTRATION WITHIN THE B.S. BIOLOGY63-72 credits

The concentration is designed for those biology students interested in ecology and evolutionary biology, but desiring a means of maximizing their efforts in the applied aspects of the field.

Required: BIOL 155/165, 156/166, 201, 202, 203, 382, 493 or 494 and 12 to 14 credits from approved biology electives. In addition, the following courses are required: CHEM 153/154, 163/164, CHEM 251/261, 252/262; in some instances, students may be advised to substitute CHEM 151, 161, 152, and 162 for CHEM 153, 163, 154, and 164; and one additional chemistry

elective excluding CHEM 205 and 211; MATH 221 or 222 or BIOL 402, and 260 or 270; PH 251 and 252; and six credits of electives in the sciences.

BIOLOGY MINOR, MOLECULAR/CELLULAR/ORGANISMAL

BIOLOGY TRACK18-19 credits

This minor provides students in chemistry, physics, pre-engineering, mathematics, and computer science a working knowledge of biology at all levels, but with an emphasis on cell and molecular biology. The cross-disciplinary experience allows them to apply the expertise from their majors to emerging fields in nanobiology, biotechnology, genetic engineering, genomics, computational biology, and others.

Required: BIOL 155/165, 203, 341 and 350 or 483. In addition, three to four credits to be elected from: BIOL 305, 306, 307, 320, 382, 404, 440, 444, 446, 450, 452, 459, 460, 464, 485; BCHM 453 or 454.

BIOLOGY MINOR, ECOLOGY/EVOLUTIONARY

BIOLOGY TRACK18-20 credits

This program is designed for students who are in other majors but require a general knowledge of the fundamental concepts of biology, but with a focus on ecology/evolutionary biology aspects. These students will be provided with additional skills and experience to enhance their education.

Required: BIOL 156/166, 202, and 11-12 credits from the following: BIOL 382, 402, 425, 427, 428, 432, 456, 471, 473, 492, 493, 494, or 495.

Environmental Studies

The Environmental Studies Program introduces students to environmental problems confronting contemporary society and examines these problems from a multidisciplinary point of view. Students have the opportunity to learn the role of science in various environmental situations, as well as management policies. The departments of Physics, Anthropology, Geography, and Earth Sciences (AGES), Chemistry, Biology and the Science Education Program

are participants in the Environmental Studies program. As well, Clarion University is a member of the Regional Science Consortium. Located at the Tom Ridge Center at Presque Island, Clarion University's membership in the consortium allows students and faculty access to research and educational facilities on Lake Erie.

PRE-PROFESSIONAL STUDIES IN HEALTH CAREERS

The Biology Department offers a number of programs specifically designed to prepare students planning to enter a professional school in the healing arts, including pre-chiropractic, pre-dentistry, pre-medicine, pre-optometry, pre-pharmacy, pre-veterinary, and pre-podiatry. Qualified biology majors interested in a career in medicine have a unique opportunity to apply for early acceptance to begin their medical training through a "3+4" or "4+4" affiliation agreement with Lake Erie College of Osteopathic Medicine (LECOM) in Erie, Pa. Another affiliation agreement with the LECOM School of Pharmacy provides qualified students with the option of pursuing a "2+3" or "3+3" accelerated pharmacy program. Those students interested in pursuing a career in chiropractic have the opportunity of a "3+3" program with Logan College of Chiropractic in Chesterfield, Mo. For more details on these programs, see page 119.

Biology Courses

BIOL 105: FRESHMAN BIOLOGY SEMINAR

1 s.h.

Recommended for all freshmen and new majors in any area of biology. Enables students to : explore and understand various majors, minors, curricula, and career options in biology; become familiar with biology department faculty, research interest and opportunities; identify and/or utilize department, campus and community resources that will enhance their academic program; and develop and apply strategies to facilitate the learning process. Fall annually.

BIOL 111: BASIC BIOLOGY

3 s.h.

Deals with the principles of biology. Includes cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance, and people's interrelationship with their biological environment. Briefly reviews the classification of plants and animals. Credit not to be applied toward biology major. Each semester.

BIOL 125: INTRODUCTION TO FORENSIC SCIENCE

2 s.h.

A basic course in forensic science for non-majors, combining field techniques in forensic ecology and taphonomy with laboratory techniques in molecular biology and biotechnology. Credit not to be applied toward biology major. Summer, annually; Fall, on demand.

BIOL 150: INSECTS AND SOCIETY

3 s.h.

A basic course in insects and their interactions with human society. Includes insect diversity, insect structure and function, insect biology, and both insect benefits and damage. Three lecture hours weekly. Credit not to be applied toward biology major. Alternate years.

BIOL 155: PRINCIPLES OF BIOLOGY I

3 s.h.

Introduces fundamental concepts of biology focusing on the characteristics of living things, cell function, biological information, storage and retrieval, and organismal structure and function. Presents concepts in the context of current evolutionary theory. Three hours lecture weekly. For biology majors. All science, science education, and biology majors must concurrently register for BIOL 165. Fall, annually.

BIOL 156: PRINCIPLES OF BIOLOGY II

3 s.h.

Introduces fundamental concepts of biology focusing on organismal structure and function, adaptation, behavior, and ecology in the context of current evolutionary theory. Three hours lecture weekly. For biology majors. All science, science education, and biology majors must concurrently register for BIOL 166. Spring, annually.

BIOL 165: PRINCIPLES OF BIOLOGY I LABORATORY

1 s.h.

Laboratory exercises augment and integrate course material emphasized in BIOL 155. Three hours laboratory weekly. For biology majors. Must be taken concurrently with BIOL 155 unless it is being repeated. Fall, annually.

BIOL 166: PRINCIPLES OF BIOLOGY II LABORATORY

1 s.h.

Laboratory exercises augment and integrate course material emphasized in BIOL 156. Three hours laboratory weekly. For biology majors. Must be taken concurrently with BIOL 156 unless it is being repeated. Spring, annually.

BIOL 200: SELECTED TOPICS IN BIOLOGY

1-3 s.h.

Provides for focused study of a special interest topic in biology using different learning formats selected by the instructor as best suited for the particular course. May be offered in any semester, subject to demand and staff availability. Not for biology majors.

Pymatuning Laboratory of Ecology

Through a unique cooperative program with the University of Pittsburgh, Clarion University offers a program of study in field ecology at the Pymatuning Laboratory of Ecology (PLE). Courses are taught by faculty from cooperating institutions. Sessions at Pymatuning are open to undergraduate and graduate students, are three weeks in length, and students normally reside on site.

The PLE is a field station dedicated to environmental education and ecological research. In PLE courses, direct observation and hands-on experience with living organisms under field conditions are combined with modern laboratory and computer techniques in the discovery of structure and function in ecological systems. PLE is located within Pymatuning State Park and overlooks Sanctuary Lake, part of an 11,000 acre tract of water, wetlands, and forest. The region contains many natural lakes, marshes, streams, and intact forests, making it an ideal location to study field biology.

SECONDARY EDUCATION—BIOLOGY/GENERAL SCIENCE

The Biology Department offers in conjunction with the Education Department a program in secondary education—Biology. (page 155 for more details). Also available is a multidisciplinary secondary education degree in general science (page 156 for details). A Teaching Certificate in Environmental Education Grades K-12 is also available.

- BIOL 201:** *GENETICS* **3 s.h.**
 A study of the principles of inheritance in plants and animals, including humans. Topics include Mendelian genetics, linkage recombination, cytogenetics, and molecular genetics. Three lecture hours and one recitation hour weekly. Prerequisites: BIOL 155, 156, 165, 166, CHEM 151 or 153, 161 or 163, 152 or 154, 162 or 164, all with a grade of C or better. Fall and Spring, annually.
- BIOL 202:** *PRINCIPLES OF ECOLOGY* **3 s.h.**
 Examines the interaction of organisms and their biotic and abiotic environment, population dynamics and interactions, community structure and function, and ecosystem energetics and biogeochemistry. Two lecture and three laboratory hours weekly. Prerequisites: BIOL 155, 156, 165, 166, CHEM 151 or 153, 161 or 163, 152 or 154, 162 or 164, all with a grade of C or better. Fall and Spring, annually.
- BIOL 203:** *CELL BIOLOGY* **3 s.h.**
 Examines structure, biochemistry, and function of plant and animal cells. Two lecture and three laboratory hours weekly. Prerequisites: Completion of BIOL 155, 156, 165, and 166, with a grade of C or better or permission of instructor. Fall and Spring, annually.
- BIOL 211:** *ENVIRONMENTAL BIOLOGY* **3 s.h.**
 Examines the complexity and function of natural ecosystems. Includes an exploration of the basic biological principles that govern the natural world, and considers the many ways in which humans affect the environment. Two hours lecture/discussion and three hours field trips/activities weekly. Credit not to be applied toward a biology major or biology education certification.
- BIOL 224:** *HUMAN BIOLOGY* **3 s.h.**
 Focuses on the biology of the human organism. Recent scientific and medical advances as they relate to the development of public policy are interwoven through topics covered. The biology of our aging human population including issues such as infection, autoimmunity, and cancer, as well as respiratory, cardiovascular, and urinary system decline, will be discussed. Credit not to be applied toward a biology major or biology education certification.
- BIOL/GS 225:** *HUMAN GENETICS* **3 s.h.**
 Mendelian genetics and the inheritance of human genetic disease. Examines the anatomical, physiological, biochemical, and genetic basis of human diseases, including diabetes, atherosclerosis, and cancer, and the genetic component of mental illness. Analyzes behavioral genetics, sociobiology, recombinant DNA, "gene therapy," and medical ethics. Non-major course for students who wish to know more about human genetics than is available in basic biology. Particularly useful for students in anthropology, rehabilitative sciences, psychology, sociology, and special education. Prerequisite: One semester of biology or permission of instructor. Annually.
- BIOL 258:** *ANATOMY AND PHYSIOLOGY I* **3 s.h.**
 Analyzes the normal structure of the human body and how it functions. Focuses on the reproductive, skeletal, muscular, nervous, and endocrine systems and their interrelationships. Three lecture and two lab hours weekly. Fall, annually. Not for biology majors.
- BIOL 259:** *ANATOMY AND PHYSIOLOGY II* **3 s.h.**
 Continuation of BIOL 258: Anatomy and Physiology I. Includes the circulatory, respiratory, digestive, urinary, and integumentary systems and their interrelationships. Three lecture and two laboratory hours weekly. Prerequisite: BIOL 258. Spring, annually. Not for biology majors.
- BIOL 260:** *MICROBIOLOGY* **3 s.h.**
 Examines microorganisms, including viruses, bacteria, fungi, and protozoa, emphasizing those associated with human health and disease. Considers immunity and resistance to infectious diseases and to their epidemiological and public health aspects. Laboratory emphasizes pathogenic bacteria and the bacteriological and microscopic techniques. Two lecture and three laboratory hours weekly. Not for biology majors. Venango Campus and Pittsburgh Site, annually.
- BIOL 305:** *GENERAL ZOOLOGY* **3 s.h.**
 Surveys the animal kingdom. Emphasizes the biology and classification of both invertebrate and vertebrate animals. Covers the role of animals in ecosystems and interrelationships among the various taxa and aspects of morphology, phylogeny, ethology, and zoogeography. Includes special reference to animals occurring in Pennsylvania. Two lecture and three laboratory hours weekly. Prerequisites: Completion of two semesters of introductory biology or permission of instructor. Alternate years.
- BIOL 306:** *GENERAL BOTANY*
 A survey of the structure, function, and diversity of non-vascular and vascular plants from an evolutionary perspective. Topics include structure, function, organization, and evolution of plant cells and tissues, photosynthesis and nutrition, water uptake and balance, hormonal control of growth, reproduction, and dispersal, and classification and systematics. Two lecture and three laboratory hours weekly. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Spring, alternate years.
- BIOL 307:** *GENERAL MYCOLOGY*
 A survey of kingdom fungi, with particular emphasis on the mushrooms, molds, yeasts, smuts, rusts and slime molds. Topics include the morphology, physiology, biochemistry, systematics, ecology and evolution of fungi. Laboratory stresses identification of higher fungi, laboratory techniques and field mycology. Two lecture and three laboratory hours weekly. Prerequisite: Completion of BIOL 155 and BIOL 156 or permission of instructor. Fall, alternate years.
- BIOL 320:** *BIOLOGY OF CANCER* **3 s.h.**
 This course presents an overview and perspective of both the scientific and clinical aspects of cancer with an emphasis on the cellular, molecular, and genetic models of cancer development in humans. Topics include: cancer epidemiology, basic concepts of malignant process, TNM classification, modern advances in tumor biology and molecular biology including the effects of a variety of agents (chemical, radiation, viruses, and oncogenes) that cause human cancer. Furthermore, the course examines the major types of cancer as well as present methods of cancer prevention and treatment. Three lecture hours weekly. Prerequisites: BIOL 201 and BIOL 203.
- BIOL 341:** *GENERAL MICROBIOLOGY* **4 s.h.**
 A study of microorganisms, including bacteria, viruses, fungi. Extensive laboratory work includes isolation, staining, culturing, and identification of microorganisms. Examines prokaryotic cell architecture, microbial physiology, methods of controlling the growth of microbes, microbial genetics, medical microbiology, and applied and environmental microbiology. Two lecture periods and two laboratory periods weekly. Prerequisites: BIOL 155, 156, 165 and 166; CHEM 151 or 153, 161 or 163, 162 or 164, all with a grade of C or better. Each semester.

- BIOL 360:** *PROBLEMS IN BIOLOGY* **1-4 s.h.**
Acquaints students with skills and techniques used in research. Students identify a problem for investigation and complete all phases of its study, including writing a research report. Approval from the staff member who will direct the student must be secured before pre-registration.
- BIOL 382:** *EVOLUTION* **3 s.h.**
Analyzes evolution and its links with other areas of biology. Includes the history of evolutionary thought, species concepts and speciation processes, phylogenetic patterns and their reconstruction, diversity of life, and the mechanisms of evolution. Satisfies the second value flag of the university general education requirements. Three lecture hours weekly. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Spring, annually.
- BIOL 400:** *SPECIAL TOPICS* **1-6 s.h.**
Advanced topics in various areas of biology. The professor selects a format most suitable to the study. May be offered on request of students, subject to staff availability. Enrollment by consent of the instructor. On demand.
- BIOL 402:** *BIOMETRY* **3 s.h.**
Introduction to the collection, analysis, and presentation of biological data. Fundamental aspects of designing and executing descriptive and experimental studies emphasizing biological research. Stresses applications to undergraduate and graduate research in progress in the Department of Biology. Three lecture hours per week. Spring, alternate years.
- BIOL 404:** *GENOMICS AND BIOINFORMATICS* **3 s.h.**
The new disciplines of genomics, proteomics, and bioinformatics analyze the deluge of DNA sequence data currently being generated. Topics include comparative structure of prokaryotic and eukaryotic genomes, genetic variation in humans and pharmacogenetics, and genetic circuits and complex disease. Students will be introduced to the computational techniques and algorithms of bioinformatics, and the use of them to mine information about a gene and genome of their choice. Designed for students in biology, molecular biology, evolutionary biology, biochemistry, industrial mathematics, and computational sciences. Two hours of lecture and three hours of lab. Prerequisites: BIOL 201 and MATH 260 or 221 or permission of instructor. No programming experience is necessary, but a facility with computers is assumed. Pre-session, alternate years.
- BIOL 405:** *ECOLOGICAL APPLICATIONS* **3 s.h.**
Case history approach to the analysis and possible resolution of both terrestrial and aquatic environmental problems. Students analyze problems from a number of perspectives, including the biological, in an assessment of the problem. Incorporates sample design, cost considerations, data collection, and analysis into the assessment. Overall assessment of problems and possible resolutions will be conveyed both orally and in a written format. Intended as a capstone for students in the Applied Ecology Program, but appropriate for other students who meet prerequisites. Satisfies the writing intensive and second values flags of the university general education requirements. Prerequisites: BIOL 202 or permission of the instructor, BIOL 493 and 494 are recommended. Spring, annually.
- BIOL 410:** *FIELD METHODS IN ENVIRONMENTAL BIOLOGY* **3 s.h.**
A field-based course designed to give students hands-on experience in the various methods needed in environmental studies. The course will focus on the environmental assessment of terrestrial and aquatic habitats and the impacts of perturbations on flora, fauna, and natural landscapes. Summer, on demand.
- BIOL 411:** *WILDLIFE ECOLOGY AND MANAGEMENT* **3 s.h.**
A study of the ecology and management of mammals, birds, amphibians, and reptiles. Lectures cover population dynamics, estimation, and population viability, sampling techniques, habitats, disease, and both game and non-game management. Labs emphasize wildlife population modeling, habitat assessment using GIS, and evaluation of alternative management strategies. Students will develop their own wildlife management plans. Two hours of lecture and three hours of laboratory weekly. Prerequisite: BIOL 202 or permission of instructor. Fall, alternate years.
- BIOL 425:** *FISHERIES BIOLOGY* **3 s.h.**
Examines ecology of fish populations, including taxonomy identification, age and growth, population estimation and analysis, food habits, management, and environmental requirements. Emphasizes data analysis and application of microcomputers in fisheries work. Two lecture and three hours of laboratory or field work weekly. Prerequisites: Completion of a course in ecology or permission of instructor and Pennsylvania fishing license required. Alternate years.
- BIOL 427:** *FIELD BOTANY* **3 s.h.**
Field-based course stresses the identification, classification, distribution, and evolutionary relationships of vascular plants, emphasizing the flora of western Pennsylvania and adjacent regions. Two hours lecture and three hours laboratory or field work weekly. (Pymatuning Laboratory of Ecology). Prerequisite: Completion of a course in ecology or permission of instructor. Alternate years.
- BIOL 428:** *ORNITHOLOGY* **3 s.h.**
Deals with the biology of birds. Lectures cover topics such as classification, internal and external adaptations for flight, migration, nesting, feeding habits, behavior, ecology, and physiology. Two lectures and three laboratory or field trip hours per week. Prerequisite: Junior or higher standing in biology or permission from the instructor. Alternate years.
- BIOL 432:** *FIELD ORNITHOLOGY* **3 s.h.**
Deals primarily with the identification and natural history of birds of western Pennsylvania. It is taught at a time when migratory species are commonly seen. Although lectures are an important component, indoor and outdoor laboratory activities play a predominant role. (Pymatuning Laboratory of Ecology). Prerequisite: Completion of two semesters of introductory biology or permission of the instructor. Spring, even-numbered years.
- BIOL 440:** *ENVIRONMENTAL MACROBIOLOGY* **3 s.h.**
Explores the diversity, distribution, and activities of microorganisms in natural, managed and extreme environments, with a particular focus on microbial communities, interactions and environmental processes. Laboratory sessions and field experiences will be on an arranged basis. Prerequisite: BIOL 341 or permission of instructor. Alternate years.

- BIOL 443:** *VIROLOGY* **3 s.h.**
Study of plant, animal, and bacterial viruses, emphasizing biochemistry, structure, life cycles, and disease-causing mechanisms. Three lecture hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252 and 262, all with a grade of C or better. Fall, even-numbered years.
- BIOL 444:** *IMMUNOLOGY* **4 s.h.**
Study of the mammalian immune system. The course will focus on the parts of the system and how they function together to produce the varied and complex regulated responses that provide innate and adaptive immunity. The course incorporates case studies involving dysfunction and pathophysiology of the immune system. Three lecture hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252 and 262, all with a grade of C or better. Spring, annually.
- BIOL 446:** *PATHOGENIC MICROBIOLOGY* **4 s.h.**
Analyzes the bacteria, fungi, and viruses that cause human disease. Laboratory emphasizes isolation and identification of pathogens and elementary immunology. Two lecture and four laboratory hours weekly. Prerequisite: General microbiology or permission of instructor. Annually.
- BIOL 450:** *CELL PHYSIOLOGY* **4 s.h.**
Study of the regulatory processes that occur within the eukaryotic cells that govern homeostasis and allow for adaptive change. The course will focus on membrane biochemistry, transport, protein sorting, cell signaling, cytoskeletal nanomotors, and cell specialization. The laboratory portion of the course incorporates experiential learning of basic procedures that allow experimentalists to uncover the workings of the eukaryotic cell. Three lecture hours and three laboratory hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252 and 262, all with a grade of C or better. Annually.
- BIOL 451:** *ANIMAL PHYSIOLOGY* **3 s.h.**
Study of the comparative physiology of animals, including water and ion regulations, circulation, respiration, nutrition, nervous activity, endocrine functions, and responses to temperature, light, gases, and pressure. Two lecture and three hours laboratory weekly. Prerequisites: Completion of a course in cell biology and one semester of organic chemistry or permission of instructor. Fall, annually.
- BIOL 453:** *PATHOPHYSIOLOGY: ENDOGENOUS AGENTS* **4 s.h.**
Analyzes the mechanisms by which disease occurs in humans. Emphasizes responses to the disease process, and the effects of pathophysiologic mechanisms on the normality of cell, tissue, organ and system functions, and the response of the body to the disease process. Prerequisites: Prior courses in physiology desired. Two years of study in biology or permission of instructor. Venango Campus and Pittsburgh site, annually. Not for biology majors.
- BIOL 456:** *ENTOMOLOGY* **3 s.h.**
General study of insects, including structure, physiology, classification, economic importance, and ecology. Two lecture and three hours of laboratory or fieldwork weekly. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Alternate years.
- BIOL 459:** *PHYSIOLOGICAL ECOLOGY* **3 s.h.**
Nearly every habitat on earth, from thermal hot springs to polar ice caps, is home to some form of life. Physiological ecology explores the biotic and abiotic challenges to organisms imposed by their environments and adaptations, which allow them to survive in various habitats, both in terms of how organisms physiologically adapt to short-term fluctuations in their environment and how adaptations influence biogeographic distribution and evolutionary success of various species. Topics include adaptations related to temperature, water and salt balance, and gas exchange. Adaptations of organisms to extreme or unusual environments may be considered. Prerequisites: BIOL 202, 203, 451, or permission of instructor. Spring, alternate years.
- BIOL 460:** *COMPARATIVE VERTEBRATE ANATOMY* **3 s.h.**
Traces the most important trends in the evolution of basic structures in vertebrate lines and conveys an appreciation of how the mammals came to possess the combination of characters that make this group unique. Two lectures and three laboratory hours weekly. Prerequisite: Completion of BIOL 201, 203, and two semesters of organic chemistry, or permission of instructor. BIOL 282 recommended. Spring, annually.
- BIOL 464:** *DEVELOPMENTAL BIOLOGY* **3 s.h.**
focuses on the major processes in multi-cellular development and embryogenesis and their underlying biochemical mechanisms. Throughout the semester, students will study various processes, such as cell differentiation, intra- and inter-cellular induction, and organismal morphogenesis. The class will primarily focus on animal or vertebrate development, though invertebrate and plant model organisms will also be examined. Prerequisites: BIOL 201, 203; CHEM 251, 252, 261, 262, all with a grade of C or better. Fall, alternate years.
- BIOL 471:** *PLANT ECOLOGY* **3 s.h.**
In-depth approach to the interaction of plants with the physical and biotic environments at population, community, ecosystem, and landscape scales. Lecture and discussion focus on current topics in plant ecology such as disturbance, succession, herbivory, dispersal, competition, and environmental stress. Laboratory includes field-based experimental and descriptive investigations of plant population and communities. Two hours lecture/discussion and three laboratory hours weekly. (Pymatuning Laboratory of Ecology). Prerequisite: A course in ecology or permission of instructor. On demand.
- BIOL 473:** *FRESHWATER ECOLOGY* **3 s.h.**
Field-oriented study of the physics, chemistry, and biology of standing and flowing inland waters. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Alternate years.
- BIOL 474:** *ECOLOGY OF AQUATIC INSECTS* **3 s.h.**
A study of the ecology, natural history, and classification of aquatic insects, with emphasis on their adaptations and trophic relationships. Two lecture and three laboratory hours weekly. Spring, alternate years.

BIOL 475: *WETLAND ECOLOGY***3 s.h.**

Wetlands are an important transitional habitat from terrestrial to aquatic systems. They provide services that are critical to the health and functioning of the ecosystem, but in many ways wetlands defy easy definition. This class investigates the different types of wetlands, the properties that define wetlands, the benefits they supply to the ecosystem and society, and the history and present status of ecosystem management. (Pymatuning Laboratory of Ecology). Prerequisite: BIOL 202. Summer session.

BIOL 477: *FOREST ECOLOGY***4 s.h.**

An in-depth approach to the structure, function and dynamics of forest ecosystems at multiple scales. Lecture and discussion focuses on current topics in forest ecology and management such as major forest types and climate influence, of physical factors like soils and hydrology on forest ecosystem function, the importance of disturbance, herbivores, and pathogens in structuring forest ecosystems, and the concept and practice of sustainability in forest management. Laboratory emphasizes descriptive and investigative studies of local forest ecosystems. Three lecture and three laboratory hours weekly. Prerequisite: A course in ecology, BIOL 306 desirable, or permission of instructor. Alternate years.

BIOL 478: *BIOME STUDIES***1-3 s.h.**

A travel-study program offering opportunities for study in the various biomes, e.g., grasslands, montane, seashore, etc. On demand.

BIOL 483: *MOLECULAR BIOLOGY***4 s.h.**

Study of the structural and functional relationships of the major biological macromolecules, emphasizing nucleic acid biology. Laboratory emphasizes current systems, methods, and applications of biotechnology, including recombinant DNA techniques. Two lecture and four laboratory hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252, and 262, all with a grade of C or better. Annually.

BIOL 485: *BIOTECHNOLOGY***4 s.h.**

Advanced topics in the current systems, methods, and applications of nucleic acid and protein biotechnology. One lecture and three laboratory hours weekly. Prerequisite: BIOL 483 or permission of instructor. Spring, annually.

BIOL 492: *ANIMAL BEHAVIOR***3 s.h.**

Study of the biological concepts of animal behavior. Investigates sensory receptors, internal mechanisms, genetics, learning and habituation, social organization, and communication. Topics include techniques of observation and experiments in animal behavior. Three lecture hours weekly. Prerequisites: BIOL 201, 202. Alternate years.

BIOL 493: *COMMUNITY AND ECOSYSTEM DYNAMICS***4 s.h.**

In-depth approach to the structure, function, and dynamics of ecological systems at community, ecosystem, and landscape scales. Lecture and discussion focus on current topics such as niche theory, the regulation of community structure, food webs, ecological stability, diversity, succession, and energy and material cycles. Laboratory emphasizes field-based descriptive and investigative studies of local communities and ecosystems. Three hours lecture and three hours laboratory weekly. Prerequisites: Completion of a course in ecology, basic statistics highly desirable, or permission of instructor. Spring, alternate years.

BIOL 494: *POPULATION BIOLOGY***4 s.h.**

Investigates the empirical, experimental, and theoretical aspects of the structure, growth, and evolution of biological populations. Takes a holistic approach to how population genetics and population ecology interact to produce observed population structure and dynamics. Two hours lecture/discussion and three laboratory hours weekly. Prerequisites: Completion of a course in ecology and calculus or permission of instructor. Alternate years.

BIOL 495: *UNDERGRADUATE SEMINAR I***3 s.h.**

Extensive exposure to primary scientific research articles in their field of studies allows students to critically assess modern experimental techniques and theories. Furthermore students will practice critical thinking and communication skills required for professional scientists. Students will critique each seminar via written reviews as well as verbal discussions; focusing on comprehension of the content, understanding and interpretation of research data, evaluation of journal author's conclusions, and analysis of student presentations. Prerequisites BIOL 201 and BIOL 203. Required for molecular biology/biotechnology majors. Fall, annually.

BIOL 499: *UNDERGRADUATE RESEARCH IN BIOLOGY***1-4 s.h.**

Gives upper-level undergraduate students an experience in biological research. Students identify problems for investigation and complete all phases of study, including writing a research report. Prerequisites: Second semester junior or senior standing with a 3.0 QPA overall, a 3.0 QPA in biology, or the consent of the department. Limited to a total of four credits during undergraduate career. Students seeking approval for a BIOL 499 project must complete the BIOL 499 registration form securing signatures of the academic advisor and project director. BIOL 360 and 499 may not be used for the same project.

Environmental Studies Courses**ENVR 275:** *ENVIRONMENTAL STUDIES AND POLICIES***3 s.h.**

Introduces students to the basic language and methodologies used in environmental studies. Examines management policies and diversity of land uses associated with each property. Students study key ecological habitats, some rather pristine and others highly impacted by humans. Students learn the role science plays in each situation, conduct basic laboratory and field research to learn how scientific data are obtained, and learn the roles history, sociology, politics, economics, etc. play in policy decisions. Three lecture hours weekly. Prerequisite: One semester of biology, chemistry, or earth science. Annually.

ENVR 475: *FIELD NATURAL HISTORY***3 s.h.**

Explores competencies in biology, meteorology, geology, and astronomy. Emphasizes developing competencies which will be valuable in teaching environmental (outdoor and conservation) education. Prerequisite: Upper-division standing. On demand.

ENVR 490: SEMINAR IN ENVIRONMENT AND SOCIETY 3 s.h.

Interdisciplinary seminar synthesizes knowledge and skills acquired in lower-division courses through unifying environmental studies. Broad theme offers a variety of dimensions for study and research. Bases studies and research around environmental situations existing in this northwest region of Pennsylvania. Two lecture and three laboratory hours weekly. Prerequisites: Junior standing, ENVR 275, PHIL 212, ECON 202, plus nine additional hours of environment and society courses, or consent of instructor. Annually.

General Studies Course

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

GS/BIOL 225: HUMAN GENETICS 3 s.h.

Examines Mendelian genetics and the inheritance of human genetic disease. Investigates the anatomical, physiological, biochemical, and genetic basis of human diseases, including diabetes, atherosclerosis, and cancer. Analyzes the genetic basis of mental illness. Explores behavioral genetics and sociobiology, recombinant DNA, "gene therapy," and medical ethics. Non-majors course for students who wish to know more about human genetics than is available in basic biology. May be particularly useful for students in anthropology, rehabilitative sciences, psychology, sociology, and special education. Prerequisite: One semester of biology or permission of instructor. Annually.

Medical Technology Courses (Professional Study Year)**MT 401: CLINICAL MICROBIOLOGY 6-9 s.h.**

Explores identification and clinical pathology of bacteria, fungi, viruses, and parasites. Presents techniques to isolate, stain, culture, and determine antimicrobial susceptibility. Includes instrumentation and quality control.

MT 402: CLINICAL CHEMISTRY 6-9 s.h.

Examines enzymology, endocrinology, biochemistry of lipids, carbohydrates and proteins, metabolism of nitrogenous end products, physiology and metabolism of fluids and electrolytes, and toxicology as related to the body and diseases. Includes colorimetry, spectrophotometry, electrophoresis, chromatography, automation, and quality control.

MT 403: CLINICAL HEMATOLOGY / COAGULATION 3-6 s.h.

Analyzes the composition and functions of blood; diseases related to blood disorders; the role of platelets and coagulation. Includes manual and automated techniques of diagnostic tests for abnormalities.

MT 404: CLINICAL IMMUNOHEMATOLOGY 4-6 s.h.

Examines blood antigens, antibodies, crossmatching, hemolytic diseases, and related diagnostic tests. Includes an in-depth study of blood donor service and its many facets such as transfusions, medico-legal aspects, etc.

MT 405: CLINICAL IMMUNOLOGY / SEROLOGY 2-4 s.h.

Explores immune response, immunoglobulins, autoimmunity and complement, and related tests and diseases. Includes survey and demonstration of serological diagnostic tests.

MT 406: CLINICAL SEMINAR 0-4 s.h.

Other courses which are not included in the above (such as orientation, laboratory management, education, clinical microscopy) are unique to the individual hospital program.

Physical Science Courses**PHSC/BIOL 116: AERODYNAMICS: THE PHYSICS AND BIOLOGY OF FLIGHT 3 s.h.**

The biomechanics of flight. Students use techniques in physics and evolutionary biology to study how animals fly and swim. Draw upon bats, birds, insects, and even winged seeds, for discussing and testing the basic operating principles of wings. Apply results obtained with a wind tunnel to the locomotion of objects in water. Compare and contrast the flyers and swimmers of nature with those of human invention. The course has a substantial studio laboratory component. On demand.

PH 261: PHYSICS OF ENERGY AND THE ENVIRONMENT 3 s.h.

A study of the physical laws and processes that underlie environmental phenomena with a special focus on energy (mechanical, thermal, and electrical). Establishes both a qualitative and quantitative understanding of the underlying physical processes. Technical, economic, and social consequences of these laws and processes are examined to better delineate the complex decisions related to human energy use and environmental issues. The course might serve as a substitute for PH 251: General Physics I and prepares students equally well for PH 252: General Physics II. Fall Semester.



Chemistry

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Professors: Bering, Keen

Assistant Professors: Chant, Clark, Lockwood, Overly, Touster

Chemistry is the study of the properties and behavior of matter, which provides an important understanding of our world and how it works. A chemistry degree is a powerful springboard which can launch you into a fascinating and rewarding career. A bachelor's-level graduate in chemistry is able to assume a variety of positions in industry, government, or academia. Students can elect to complete a B.S. with a major in chemistry, or a more extensive major resulting in a B.S. in chemistry certified by the American Chemical Society. Other options available to students include certification to teach secondary school chemistry, a cooperative program in chemical engineering, a B.S. in chemistry with a business minor, and a minor in chemistry.

The Clarion University chemistry curriculum, approved by the Committee on Professional Training of the American Chemical Society, provides a strong foundation for further studies at the graduate level or a career in the chemical industry. The program provides students with a rigorous introduction to the fields of chemistry and biochemistry. The curriculum emphasizes experience with modern chemical instrumentation, current developments in chemistry, independent chemical

research, and professional growth. The department is small, which allows for a personal, caring atmosphere and an environment that encourages both intellectual growth and academic achievement.

CHEMISTRY, B.S. 54 credits

Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 271, 353, 354, 355, 358, 363, 364, 368, 456, 470, and BCHM 453, 463. In addition to these 42 credits of chemistry, the following courses are required: MATH 270, 271, 272; PH 251 or 258, and 252 or 259; plus 12 credits of approved science/mathematics electives.

Graduates who have met these requirements and at least six semester hours of advanced courses that include sufficient laboratory work to bring total laboratory hours to 500 will be certified as having completed an approved program as determined by the Committee on Professional Training of the American Chemical Society.

CHEMISTRY MAJOR WITH BUSINESS CONCENTRATION 58 credits

Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 271, and eight credits of 300-level or above chemistry electives; ACTG 251; ECON 211, 212; MKTG 360; MGMT 320; CIS 110; three credits from ECON 221; MATH 232 or MATH 422; and nine credits chosen from ACTG 252, 350, 353; FIN 370, 471; MKTG 361, 460, 461, 465; MGMT 321, 324, 420, 425; ECON 310, 351, 361.

SECONDARY EDUCATION, B.S.ED.

Certification for grades 7-12, Chemistry (see under Secondary Education, Chemistry), page 155.

CHEMISTRY MINOR 19-20 credits

Required: CHEM 251, 252, 261, 262, 353, 354, 363, 364, and three to four credits from either CHEM 355; CHEM 358, 368; BCHM 453, 463; or CHEM 456.

The Chemistry Department also offers a cooperative chemical engineering program, a program in secondary education, a pre-pharmacy, and a pre-medicine program.

Chemistry Courses

*Signifies no student may take for credit a chemistry course at the 100-level after having successfully completed any 300-level or above chemistry course.

- CHEM 050:** **PREPARATION FOR CHEMISTRY** **3 s.h.**
Emphasizes development of verbal, mathematical, and abstract reasoning skills, and a basic scientific vocabulary needed to more fully explore the science of chemistry. Designed for students who may not have sufficient background for college chemistry. Placement is recommended by the Department of Chemistry or it may be taken by students who feel a need to strengthen their skills prior to entering the normal sequence of chemistry courses. Course credits do not count toward graduation or general education science requirement. Offered occasionally.
- CHEM 151:** **CHEMICAL PRINCIPLES I*** **3 s.h.**
Explores atomic theory, gases, solids, liquids, chemical bonding, and molecular structure. Intended for chemistry majors, pre-medical students, and others who desire a rigorous introductory course. CHEM 151 and 152 comprise the foundation for all subsequent courses in the major sequence. A strong background is desirable but not required. Students must concurrently schedule CHEM 161. Three hours lecture. Fall, annually.
- CHEM 152:** **CHEMICAL PRINCIPLES II*** **3 s.h.**
Includes second law, equilibrium, acids and bases, electrochemistry, kinetics, and coordination chemistry. Prerequisite: CHEM 151. Students must concurrently schedule CHEM 162. Three hours lecture. Spring, annually.
- CHEM 161:** **CHEMICAL PRINCIPLES LABORATORY II** **1 s.h.**
Laboratory exercises to exemplify and augment the material in CHEM 151. Must be taken concurrently with CHEM 151 unless it is being repeated. Three hours laboratory. Fall, annually.
- CHEM 162:** **CHEMICAL PRINCIPLES LABORATORY II** **1 s.h.**
Laboratory exercises to exemplify and augment the material in CHEM 152. Must be taken concurrently with CHEM 152 unless it is being repeated. Three hours laboratory. Spring, annually.
- CHEM 153:** **GENERAL CHEMISTRY I*** **3 s.h.**
Initial course in the fundamental concepts of chemistry for students not majoring in chemistry; it can serve as a preparation for CHEM 254 or as a general education elective. Includes atomic theory and structure, stoichiometry, chemical bonding, and the physical states of matter. Must be taken concurrently with CHEM 163. Three hours lecture. Fall, annually.
- CHEM 154:** **GENERAL CHEMISTRY II*** **3 s.h.**
Continuation of CHEM 153. Includes a discussion of solutions, thermodynamics, equilibria, kinetics, acids and bases, and oxidation-reduction. Must be taken concurrently with CHEM 164. Prerequisite: CHEM 153. Three hours lecture. Spring, annually.
- CHEM 163:** **GENERAL CHEMISTRY LABORATORY I** **1 s.h.**
Laboratory exercises to exemplify and augment the material in CHEM 153. Must be taken concurrently with CHEM 153 unless it is being repeated. Three hours laboratory. Fall, annually.
- CHEM 164:** **GENERAL CHEMISTRY LABORATORY II** **1 s.h.**
Laboratory exercises to exemplify and augment the material in CHEM 154. Must be taken concurrently with CHEM 154 unless it is being repeated. Prerequisites: CHEM 153, 163. Three hours laboratory. Spring, annually.
- CHEM 205:** **NUTRITION** **3 s.h.**
Introduces the basic principles of human nutrition. Explores the structure of proteins, fats, carbohydrates, vitamins, and minerals and their role in metabolism. Analyzes nutritional needs of various age groups, nutrition and disease, and recent research in nutritional problems. Prerequisite: One semester of general chemistry or consent of instructor.
- CHEM 211/GS 411:** **SCIENCE AND SOCIETY** **3 s.h.**
Describes the process of science as an ongoing and continuously developing means of describing the natural world. Examines what science is and how it is done. Promotes science literacy. Emphasizes written and oral communication skills as well as the ability to understand important topics in science, along with the policy and ethical questions raised. Open to students in all academic areas.
- CHEM 251:** **ORGANIC CHEMISTRY I** **3 s.h.**
Examines bonding, structure, stereochemistry, nomenclature, and the mechanisms of substitution and electrophilic addition. Emphasizes organic syntheses, reactions, and methods. Students must concurrently schedule CHEM 261. Prerequisites: CHEM 151, 152 or 153, 154. Three hours lecture. Fall, annually.
- CHEM 252:** **ORGANIC CHEMISTRY II** **3 s.h.**
Continuation of CHEM 251. A discussion of functional groups, their preparation and reactions. Emphasizes synthesis and mechanisms. Students must concurrently schedule CHEM 262. Prerequisite: CHEM 251. Three hours lecture. Spring, annually.
- CHEM 261:** **ORGANIC CHEMISTRY LABORATORY I** **1 s.h.**
Consists of experiments using important techniques, natural product isolation, and synthesis using modern instrumental methods. Must be taken concurrently with CHEM 251 unless it is being repeated. Three hours laboratory. Fall, annually.
- CHEM 262:** **ORGANIC CHEMISTRY LABORATORY II** **1 s.h.**
Complex synthesis and organic qualitative analysis using modern instrumentation. Emphasizes the important spectroscopic methods of infrared and nuclear magnetic resonance spectroscopy and mass spectrometry. Must be taken with CHEM 252 unless it is being repeated. Prerequisite: CHEM 261. Three hours laboratory. Spring, annually.
- CHEM 254:** **INTRODUCTORY ORGANIC CHEMISTRY** **3 s.h.**
Surveys the field of elementary organic chemistry, emphasizing nomenclature, simple reactions and mechanisms, and the structure of organic compounds, together with their relation to biology. Does not count toward the requirements for a major in chemistry and must be taken concurrently with CHEM 264 unless it is being repeated. Prerequisite: CHEM 152 or 154. Three hours laboratory. Fall, annually.

- CHEM 264:** *INTRODUCTORY ORGANIC CHEMISTRY LABORATORY* *1 s.h.*
Introduces important techniques, synthesis, and functional group analyses of organic compounds. Must be taken concurrently with CHEM 254 unless it is being repeated. Three hours laboratory. Fall, annually.
- CHEM 257:** *ORGANIC SPECTROSCOPY* *2 s.h.*
Applies modern spectroscopic techniques to the determination of the structures of organic compounds. Discusses the techniques of infrared, nuclear magnetic resonance, and mass spectroscopy, emphasizing their application toward the elucidation of structures of organic compounds. Presents necessary theoretical background and applications. Required of all chemistry majors and must be taken concurrently with CHEM 252. Prerequisites for other students: CHEM 254, 264, and consent of instructor.
- CHEM 270:** *CHEMICAL INFORMATION* *1 s.h.*
Covers sources, organization, and effective use of chemical information. Includes working safely with chemicals, regulatory agencies and their role in ensuring safety and environmental quality, and critical evaluation of scientific literature. Discusses aspects of both printed and computer-based information sources. Problem assignments provide illustration and practice in effective searching of the chemical literature. Co-requisites: CHEM 251, 261. Fall, annually.
- CHEM 271:** *INTRODUCTORY INORGANIC CHEMISTRY* *2 s.h.*
Introduces coordination and descriptive inorganic chemistry. Laboratory focuses on the properties and reaction chemistry of the elements and inorganic compounds. Prerequisite: CHEM 152/162. Spring, annually.
- CHEM 351:** *INTRODUCTION TO ANALYTICAL CHEMISTRY* *3 s.h.*
Explores the theory and applied techniques and instrumentation of analytical chemistry for majors in the allied health and other biological professions. Includes separation procedures and spectrophotometric, volumetric, and electroanalytical methods. Geared toward the analytical chemistry needs of the allied health and biological professions. Does not count toward the requirements for a major in chemistry. Students must concurrently schedule CHEM 361. Prerequisite: CHEM 152 or 154. Three hours lecture. Spring, annually.
- CHEM 353:** *ANALYTICAL CHEMISTRY I* *3 s.h.*
Serves students both in chemistry and in related fields. Includes spectrophotometric and volumetric methods of chemical analysis. Students must concurrently schedule CHEM 363. Prerequisite: CHEM 152 or 154. Three hours lecture. Fall, annually.
- CHEM 361:** *INTRODUCTION TO ANALYTICAL CHEMISTRY LABORATORY* *1 s.h.*
Laboratory exercises exemplify and augment topics included in CHEM 351. Must be taken concurrently with CHEM 351 unless it is being repeated. Three hours laboratory. Spring, annually.
- CHEM 363:** *ANALYTICAL CHEMISTRY I LABORATORY* *1 s.h.*
Laboratory exercises exemplify and augment topics included in CHEM 353. Must be taken concurrently with CHEM 353 unless it is being repeated. Three hours laboratory. Fall, annually.
- CHEM 358:** *ANALYTICAL CHEMISTRY II* *3 s.h.*
Includes separation procedures and electroanalytical and automated methods of chemical analysis. Students must concurrently schedule CHEM 368. Prerequisites: CHEM 354, 355; CHEM 355 concurrently, or consent of department. Three hours lecture. Spring, annually.
- CHEM 368:** *ANALYTICAL CHEMISTRY II LABORATORY* *1 s.h.*
Laboratory exercises exemplify and augment topics included in CHEM 358 and the analytical techniques of nuclear magnetic resonance and mass spectroscopy. Must be taken concurrently with CHEM 358 unless it is being repeated. Three hours laboratory. Spring, annually.
- CHEM 354:** *PHYSICAL CHEMISTRY I* *3 s.h.*
Concerned primarily with the principles of thermodynamics. Discusses kinetics in the latter portion of the term. Applies the laws of thermodynamics to many problem-solving situations. Uses calculus heavily, and requires a basic familiarity with the handling of simple differentials and integrals. Kinetics is treated from experimental and mechanistic points of view. Prerequisites: CHEM 152, 162; PH 252 or 259; MATH 271. Three hours lecture. Fall, annually.
- CHEM 355:** *PHYSICAL CHEMISTRY II* *3 s.h.*
Develops both the classical wave formulation and the concept of operators as approaches to the study of quantum mechanics. Students solve simple one-electron problems. Extends groundwork to molecular problems. Examines spectroscopy in detail, particularly as a tool in the determination of molecular structures. Prerequisite: CHEM 354. Three hours lecture. Spring, annually.
- CHEM 364:** *PHYSICAL CHEMISTRY I LABORATORY* *1 s.h.*
Involves experiments in the areas of thermodynamics and kinetics to reinforce what is taught in the lecture course. To be taken concurrently with CHEM 354. Experiments include bomb calorimetry, construction of a simple two-component phase diagram, and stopped-flow, fast-action kinetics. Prerequisite: CHEM 355. Three hours laboratory. Fall, annually.
- CHEM 365:** *PHYSICAL CHEMISTRY II LABORATORY* *1 s.h.*
Taken concurrently with CHEM 355. Involves experiments in the areas of quantum mechanics, molecular spectroscopy, and crystallography. Experiments include obtaining rotational-vibrational spectra of a diatomic molecule utilizing Fourier Transform Infrared Spectroscopy (FTIR), and analyzing a powdered crystalline sample using X-ray diffraction. Prerequisite: CHEM 355 and 364. Three hours laboratory. Spring, annually.
- CHEM 359:** *ADVANCED ORGANIC CHEMISTRY* *3 s.h.*
A study of reaction mechanism, synthetic methods, and structure elucidations. Emphasizes stereochemistry and the correlation of structure and reactivity. Prerequisites: CHEM 252 and 354 (may be taken concurrently). Spring or Fall, alternate years.
- BCHEM 453:** *BIOCHEMISTRY* *3 s.h.*
Introduction to modern cellular biochemistry. Examines proteins, enzymes, nucleic acids, and fats; the metabolic transformations of amino acids, carbohydrates, lipids, protein synthesis, and photosynthesis; and the respiratory chain and oxidation phosphorylation. Prerequisite: CHEM 251 or 254. Three hours lecture. Fall, annually.

- BCHM 454:** *BIOCHEMISTRY II* **3 s.h.**
This course is a continuation of CHEM 453. Topics will include carbohydrate, lipid and amino acid metabolism, bioenergetics, vitamins and minerals, control and regulation of metabolic pathways, and the nature of genetic diseases. Prerequisite: BCHM 453. Spring, alternate years.
- CHEM 455:** *ADVANCED PHYSICAL CHEMISTRY* **3 s.h.**
Concerned primarily with statistical mechanics and additional aspects of quantum mechanics such as molecular modeling and potential energy surfaces. Prerequisite: CHEM 355. Offered occasionally.
- CHEM 456:** *ADVANCED INORGANIC CHEMISTRY* **3 s.h.**
Extends and compares various concepts of bonding and molecular structure, encountered in previous courses, to gain appreciation of their uses and shortcomings. Includes acid-base theory, nonaqueous solvents, and coordination chemistry. The descriptive chemistry includes recently discovered compound types as well as classical periodicity and periodic anomalies. Prerequisite: CHEM 354 or consent of the department. Three hours lecture. Fall, alternate years.
- CHEM 459:** *DEMONSTRATIONS IN CHEMISTRY* **3 s.h.**
Studies are made of various demonstration techniques with students devising and applying each with many examples. Emphasizes the study of material the Chemistry Study Committee of the American Chemical Society prepared for the purpose of vitalizing high school chemistry courses. Prerequisites: CHEM 151, 152, and at least one other major course. Offered occasionally.
- CHEM 461:** *ADVANCING INORGANIC/ORGANIC LABORATORY* **2 s.h.**
Involves complex synthesis of inorganic and organic compounds. Uses sophisticated techniques and contemporary instrumentation in the synthesis, analysis, and characterization of these inorganic and organic compounds. Spring, alternate years.
- BCHM 463:** *BIOCHEMISTRY LABORATORY* **1 s.h.**
Experiments involving the major techniques in modern biochemistry. Emphasizes separation and purification techniques, kinetic studies, quantitative determinations, and analytical instrumentation in biochemistry and biotechnology. Must be taken concurrently with BCHM 453. Prerequisite: CHEM 251 or 254. Fall, annually.
- CHEM 465,466:** *CHEMICAL RESEARCH* **1-3 s.h. each**
An independent laboratory problem in some field of chemistry of special interest to the student. Admission only by consent of the instructor and the approval of the department chair. Prerequisites: CHEM 355, 358. Each semester.
- CHEM 470:** *CHEMISTRY SEMINAR* **1 s.h.**
Search of the chemical literature on a topic of current interest, compilation of a bibliography, preparation of an abstract, and presentation of a seminar. Prerequisites: CHEM 252, 355. Fall, annually.
- CHEM 471:** *ADVANCED TOPICS IN CHEMISTRY* **1 3 s.h.**
Presents topics of current interest. Topics vary from year to year. Discusses topics such as non-aqueous solvents, solid state chemistry, polymers, chemical physics, group theory, stereochemistry, organometallics, and recent developments in spectroscopy. Prerequisite: CHEM 355 (may be taken concurrently). Offered occasionally.
- CHEM 485:** *PROBLEMS IN CHEMISTRY EDUCATION* **1-3 s.h.**
In-depth exploration of a problem area in chemistry education according to the student's need or interest under the direction of a faculty member. Admission only by consent of instructor and approval of department chair. Prerequisite: Junior standing or consent of the department. Not open to chemistry majors in the liberal arts or Bachelor of Science curriculum.

General Studies Course

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

- GS 411/CHEM 211:** *SCIENCE AND SOCIETY* **3 s.h.**
See cross-listing under CHEM 211.

Physical Science Courses

- PHSC 110:** *INTRODUCTION TO ENVIRONMENTAL CHEMISTRY* **3 s.h.**
Provides a knowledge of basic chemical principles. Applies this knowledge to environmental issues such as water resources, air quality, ozone depletion, and waste disposal. Three hours lecture. Open to all students in all academic areas. No prerequisites.
- PHSC 111:** *BASIC PHYSICAL SCIENCE : CHEMISTRY* **3 s.h.**
Explores selected chemical principles with the purpose of providing a background that will enable students to understand issues involving the interaction of science and society. Intended for non-science majors and does not assume prior familiarity with chemistry. Does not count toward requirements for science majors, but can be applied to fulfill the general education math-science requirements for non-science majors. Students who prefer a more traditional chemistry course may elect either CHEM 151 or 153 to fulfill their general education requirements. No prerequisites. Each semester.

Communication

Department of Communication

Myrna Kuehn, Ph.D., Chair

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Departmental Offices:

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Professors: Blake, M. Kuehn, S. Kuehn

Associate Professors: Lingwall, Washington, Yang

Assistant Professors: Crespo, Lyle, Miller, Obotetukudo, O'Neil, Torres

A degree in communication offers many opportunities for students in a variety of exciting and rapidly expanding careers. The Department of Communication offers students a unique blend of broad-based communication and writing skills with the opportunity to concentrate in one of seven specialty areas: advertising, broadcasting, communication studies, corporate communication, film, journalism, and public relations. Students prepare for their specialties through a strong core of required courses that reflect the foundations of the discipline. Once inside the concentration, students rely on this broad background as they immerse themselves in their chosen career area. Capstone experiences such as internships provide a transition between the classroom and the professional world.

Expert faculty, outstanding equipment and facilities, and strong curriculum make the Department of Communication one of the stellar programs in the country. Our graduates have found work in major broadcast markets, newspapers, advertising and public relations firms, video production, internal and external corporate communication areas, graphic design and Web publishing, photography, event planning, sales, and non-profit organizations. Students also have been very successful in entering graduate school.

Check the Website for program requirements.

B.S. IN MASS MEDIA ARTS, JOURNALISM, AND COMMUNICATION STUDIES 72 credits

Required: MMAJ 100 or 101, MMAJ 140, 270, 320, 422, CMST 110, 113. Students must earn a "C" or better in MMAJ 100 or MMAJ 101, MMAJ 140, CMST 110, and CMST 113 to continue in upper division 300-400 level MMAJ and CMST courses.

ADVERTISING CONCENTRATION Complete the 12 credits in the following concentration: MMAJ 314, 371 375, 418, 444, 446; CMST 320, 321, 332; choose one analysis course: MMAJ 324, 331, 339, 424, 425, 426, 427; choose one of these MMAJ or CMST elective courses: MMAJ 482/CMST 495 Internship (3 credits) or MMAJ/CMST 300-499; choose liberal arts and sciences electives excluding MMAJ (18 credits).

BROADCAST CONCENTRATION Complete the 18 credits in the following concentration: MMAJ 202, 311, MMAJ 344 or 345 or 444, MMAJ 351, MMAJ 353 or 354, MMAJ 442, CMST 214,



CMST 220 or CMST/THE 251 or THE 254, CMST 311; choose one analysis course: MMAJ 324, 331, 339, 424, 425, 426, 427; choose one of these MMAJ or CMST electives: MMAJ482/CMST 495, internship or MMAJ/CMST 300-499; choose liberal arts and sciences electives excluding MMAJ (18 credits).

COMMUNICATION STUDIES CONCENTRATION Complete the 36 credits in the following concentration: CMST 200, 210, CMST 213 or 215, CMST 216, 217, 300, CMST 320 or 420, CMST 321, 322, 332, 410, 421; choose one analysis course: CMST 281, 331, 333, 430; choose one of these MMAJ or CMST elective courses: MMAJ 482/CMST 495 internship or MMAJ /CMST 300-499; free electives (9 credits).

CORPORATE COMMUNICATION Complete the 27 credits in the following concentration: CMST 214, 217, 300, 311, 312, CMST 320 OR 420; CMST/MGT 360, CMST 411, MMAJ 312; choose one CMST analysis course: CMST 210, 281, 322, 331, 333, 410, 421, 430; choose one of the MMAJ or CMST electives: MMAJ 482/CMST 495 internship OR MMAJ/CMST 300-499; choose liberal arts and sciences electives (18 credits).

FILM CONCENTRATION Complete the 27 credits in the following concentration: MMAJ 202, 208, 351, 370, MMAJ 354 or 355 or 357, MMAJ 372, 445, 455, 473, 476, CMST 321 or 322 or 332; choose one analysis course: MMAJ, 331, 339, 424, 425, 426, 427; choose arts and sciences electives excluding MMAJ (15 credits).

JOURNALISM CONCENTRATION Complete the 18 credits in the following concentration: MMAJ 249, 313, 340, 341, 344, MMAJ 345 or 441, MMAJ 442, CMST 217, CMST 321, 420; choose one analysis course: MMAJ 324, 331, 339, 424, 425, 426, 427; choose one of these MMAJ or CMST elective courses: MMAJ 482/CMST 495 internship or MMAJ/CMST 300-499; choose liberal arts and sciences electives excluding MMAJ (18 credits).

PUBLIC RELATIONS CONCENTRATION Complete the 18 credits in the following concentration: MMAJ 312, MMAJ 314 or 340, MMAJ 417, 430, 443, MMAJ 345 or 371 or 441 or 444, CMST 214, CMST 300 or 312 OR 411 OR 430; choose one of these MMAJ or CMST elective courses: MMAJ 482/CMST 495 internship or MMAJ/CMST 300-499; choose arts and sciences electives excluding MMAJ (18 credits).

Communication Courses

CMST 101-102: COMMUNICATION STUDIES ACTIVITIES

1-3 s.h.

Students earn one to three credits on a contract basis through participation in one, or both of the CMST activities, with a maximum of six credits possible in CMST 101-102. Credit for CMST activities is **optional**, and voluntary participation (without credit) is also encouraged. Instructors determine the number of credits and have the authority to approve/reject any contract for credit in CMST 101-102 based on the student's interest and ability in the activity.

CMST 101: DEBATE

1-3 s.h.

Students earn one to three credits through participation on the Debate Team by successfully completing the terms of the "Contract for Credit in CMST Activities," subject to approval by instructor and department chair. No more than three credits may be taken in CMST 101 during any one semester. Students should not enroll in CMST 101 and 256 for credit concurrently.

CMST 102: PUBLIC SPEAKING EVENTS

1-4 s.h.

Students earn one to four credits through participation on the Individual Events Team by successfully completing the terms of the "Contract for Credit in CMST Activities," subject to approval by instructor and department chair. No more than four credits may be earned in CMST 102 during any one semester. Speech communication studies majors are required to complete one credit in CMST 102 as specified in the degree program to satisfy the performance activity requirement in their major.

CMST 104: COMMUNICATION STUDIES LEADERSHIP ACTIVITIES

1-3 s.h.

Students earn one to three credits through participation in active leadership responsibilities with a university-related organization. Students must successfully complete the terms of the "Contract for Credit in CMST Activities" subject to approval by the instructor and the department chair. Students may earn a maximum of one credit per semester in CMST 104 and no more than three credits total toward graduation. Successful completion of CMST 104 requires students to attend seminars throughout the semester. The seminars are presented by speech communication studies faculty and are texture/discussion presentations pertinent to speech communication studies and leadership themes.

CMST 110: INTRODUCTION TO HUMAN COMMUNICATION

3 s.h.

A theoretical overview of the concepts involved in human communication process.

CMST 113: PUBLIC SPEAKING

3 s.h.

Introduces the long tradition of public speaking, examines the role of public speaking in a multicultural world, applies the principles of research, organization, and delivery to preparation and presentation of speeches, presents techniques students can use to combat stage fright, teaches applications of listening and critical thinking skills, and provides coaching for delivering a minimum of three in-class speeches designed for a variety of contexts.

CMST 120: HUMANITIES I: ANTIQUITY THROUGH THE MIDDLE AGES

3 s.h.

Interdisciplinary humanities course focuses on western values, beliefs, and accomplishments as reflected in the arts, and historical development from the classical period to the close of the Middle Ages. No prerequisite.

CMST 121: HUMANITIES II: THE RENAISSANCE TO THE PRESENT

3 s.h.

Continues study of Western culture from the Renaissance to the present. No prerequisite.

CMST/THE 155: INTERPRETATION I

3 s.h.

Develops expressive presentational skills through practice in the oral interpretation of literature. Focuses on analyzing an author's meaning, responding to it, communicating that meaning to an audience, and correlating oral interpretation with other arts.

CMST/MGMT 160: INTRODUCTION TO LEADERSHIP AND GLOBAL UNDERSTANDING

3 s.h.

Introduces students to global perspectives that shape how we facilitate and coordinate interactions with people from different backgrounds through the use of verbal and nonverbal messages.

CMST 200: INTERPERSONAL COMMUNICATION

3 s.h.

Focuses on the study of interpersonal communication, specifically the investigation of major theories and research in the field and the application of those theories to improving the students' interpersonal skills.

CMST 210: INTRODUCTION TO RHETORICAL THEORY

3 s.h.

Investigates, on a fundamental level, the historical and conceptual development of the major theories of rhetorical discourse. Applies theories from classical to contemporary to analysis of the spoken word. Stresses speech making and criticism of historical and current political rhetoric.

CMST 213: PERSUASIVE SPEAKING

3 s.h.

Involves the study and practice of persuasive speaking. Includes detailed analysis of the areas of invention, arrangement, style, delivery, and sophisticated use of speech criticisms a tool to improve the speaker's ability as a change agent in the public forum. Prerequisite: CMST 113.

CMST 214: BUSINESS AND PROFESSIONAL SPEAKING

3 s.h.

Develops professional and presentation skills. Students learn how to effectively adapt presentations to business audiences and professional contexts as well as manage the constraints associated with technical material and sales objectives. Prerequisite: CMST 113.

CMST 215: ARGUMENTATION AND DEBATE

3 s.h.

Study of argumentation in the area of academic debate and the legal world. Emphasizes applying theories and techniques of argumentation to developing analytical abilities, reasoning, use of data, and evidence to support arguments.

CMST 217: LISTENING

3 s.h.

Explores the process and integral role of listening in business communication from both a theoretical and practical perspective. Identifies different listening skills appropriate for diverse types and purposes of listening. Examines ineffective and effective listening behavior and the consequences of both in everyday interactions from a variety of contexts including personal, professional, and mass mediated.

- CMST 220: BROADCAST PERFORMANCE** **3 s.h.**
 Designed to develop skills needed to effectively communicate in front of the camera. Explore the principles and applications of various performance techniques involved in a video or film production, and provides extensive knowledge and practice in the forms and styles of performance for the camera.
- CMST/THE 251: VOICE AND ARTICULATION** **3 s.h.**
 Helps students improve their speech by the elimination of faulty voice and articulation habits. Gives attention to basic skills, including vocal variety, projection, breath control, tonal production, and articulation. Focuses on both the technical production of speech sounds and the student's ability to communicate.
- CMST 255: ADVANCED DEBATE** **2 s.h.**
 Further experience in competitive debating and in a variety of debating forms. Prerequisite: Consent of instructor.
- CMST 260: SPECIAL TOPICS COMMUNICATION STUDIES** **1-6 s.h.**
 Focuses on offering special topics reflecting the interest of students. Content varies from semester to semester. Suitable for both majors and non-majors in communication studies and theatre. May be taken for a maximum of nine credits in the major.
- CMST 281: GREAT WOMEN SPEAKERS** **3 s.h.**
 Examines the speeches, primarily of American women, whose public speaking has had a significant influence on our lives and our culture. Includes the study of speeches and other public communication concerning various social and political issues, movements and causes from 1800 to the present day. Involves analysis and criticism of the content and delivery of speeches.
- NOTE: Communication majors must attain the minimum grade requirement of C or better in 300-400-level, upper-division MMAJ and CMST or graduate-level MMAJ courses.**
- CMST 300: COMMUNICATION IN ORGANIZATIONS** **3 s.h.**
 Students develop personal communication competencies in contemporary organizations and gain an understanding of the design and function of communication systems within organizations.
- CMST 311: SMALL GROUP DECISION-MAKING** **3 s.h.**
 Trains students to help groups to make decisions. Utilizing techniques such as Nominal Group Technique, Ideawriting, Delphi Method, and Interpretive Structural Modeling, students will help outside clients to make decisions or solve problems.
- CMST 312: COMMUNICATION AND CONFLICT** **3 s.h.**
 Helps students understand, practice, and improve their communication skills when dealing with conflict. Emphasizes development of communication competencies required for successful management and resolution of conflict when dealing with people one-on-one, in small groups, and at work.
- CMST 320: COMMUNICATION AND GENDER** **3 s.h.**
 Investigates the effects of gender roles on communication behaviors, such as naming behavior, language acquisition, professional orientation, conflict management, self-image, dress, and social roles.
- CMST 321: NONVERBAL COMMUNICATION** **3 s.h.**
 Increases awareness of students in the areas of nonverbal communication. Describes and analyzes the various concepts of nonverbal communication, applies them to actual situations, and relates them to the entirety of the communication process.
- CMST 322: LANGUAGE AND SYMBOLS IN HUMAN COMMUNICATION** **3 s.h.**
 Focuses on language and symbols as the processes and effects in human use of verbal, vocal, visual, and video modes in daily interactions. Includes human and non-human communication systems, social and cultural aspects of language acquisition, semantics, signs, semiotics, and symbols, as they relate to diverse human communication contexts.
- CMST 331: COMMUNICATION AND DISSENTING VOICES** **3 s.h.**
 Introduces the student of rhetorical theory to the tools for analysis of individuals and groups which seek change in the political and social sphere, outside the normal decision-making process.
- CMST 332: METHODS OF PERSUASION** **3 s.h.**
 Includes general theories of persuasion, the role of persuasion in a democratic society, and introduces modern experimental research.
- CMST 333: ENVIRONMENTAL RHETORIC** **3 s.h.**
 Explores the interface of the environmental science community, the policy-making community, and the public, and analyzes the persuasive and argumentative strategies used by each community in dealing with various environmental issues (such as climate, waste, fuel, and development issues).
- CMST/MGMT 360: LEADERSHIP COMMUNICATION** **3 s.h.**
 Provides an overview of the role of communication in leadership in a variety of contexts, including interpersonal, small group, intercultural, organizational, and public sphere. Includes theoretical and experiential approaches to effective leadership communication. Students analyze their personal leadership styles and develop leadership communication skills.
- CMST 410: RHETORICAL CRITICISM** **3 s.h.**
 Involves study and application of the major types of rhetorical strategies, including both traditional and contemporary approaches. Utilizes various critical methods to analyze and criticize actual speeches and other forms of the spoken word.
- CMST 411: ORGANIZATION COMMUNICATION SEMINAR IN CONSULTING** **3 s.h.**
 Focuses on the roles and responsibilities of the communication consultant, emphasizing the latest consulting processes, assessment procedures, problem diagnoses, intervention strategies, and client presentations. Designed to facilitate hands-on learning and practical applications. Students will work with outside organizations in completing a communication consulting project. Prerequisite: CMST 300 or consent of instructor.

- CMST 420: *CROSS-CULTURAL COMMUNICATION* 3 s.h.**
Examines the role played by culture in developing personal attitudes, values, and behavior, and to apply this awareness to communicating across cultural differences in a variety of situations, including interviewing, group discussion, and negotiation.
- CMST 421: *COMMUNICATION THEORIES AND PRACTICAL APPLICATIONS* 3 s.h.**
Surveys the elements and processes critical to human communication behavior and compares influential communication theories. Emphasizes practical applications of theories.
- CMST 430: *ADVOCACY CAMPAIGNS* 3 s.h.**
Campaign advocacy involves the strategies, actions, and proposed solutions to influence decision-making at the local, state and federal level. It is designed to promote positive changes affecting people and their environments. Campaign advocacy can be used to protect rights or change unfair, discriminatory, or abusive practices. It is used to gain eligibility for services or change the nature and quality of services to better meet the needs of the individual. It also is used to assist in the removal of barriers and limitations which work to prevent full access to full participation in community life.
- CMST 490: *INDEPENDENT STUDY* 1-3 s.h.**
Selected topics for research and/or performance projects in speech communication. Prior to registration, students need to obtain an advisor who will direct their study. Approval by appropriate dean required.
- CMST 495: *INTERNSHIP IN COMMUNICATION STUDIES* 1-12 s.h.**
The internship program gives the student the opportunity to apply classroom theory and techniques in business, government, theatre, and other cooperating organizations. Course open to any speech communication major with a junior or senior standing and consent of department. Student must have a 2.5 QPA or higher and 3.00 QPA in a major.
- MMAJ 100: *INTRODUCTION TO MASS MEDIA* 3 s.h.**
Systematic study of mass media and their support industries. Includes historical and critical perspectives of legal, ethical, and social issues surrounding the influence of the mass media on audiences, characteristics and functions of the mass media, career options, employment trends, and competencies required of a mass media professional.
- MMAJ 101: *MASS MEDIA AND SOCIETY* 3 s.h.**
Investigates elements of the relationship between the mass media, message producers, and their audience, including effects of mass media messages (aural, visual, and textual media). Covers the media professions, and explores variables including message meaning, environment, and technology. Requires students to apply theoretical concepts to practical problems.
- MMAJ 140: *WRITING FOR MEDIA* 3 s.h.**
Develops fundamental skills in writing and/or visualizing for a variety of media forms. Emphasizes print and broadcast newswriting, advertising copywriting, and public relations writing. Prerequisite: ENG 111 or consent of instructor.
- MMAJ 202: *MEDIA PRODUCTION PLANNING* 3 s.h.**
Media Production Planning is a survey class of graphic design, Web, film and video production processes. Students will learn specific steps for those types of productions as well as how those processes can help to coordinate projects in Advertising, Public Relations, Journalism and other media. Students will also learn real-world management principles, and fundamental budgeting and scheduling skills.
- MMAJ 208: *INTRODUCTION TO FILM* 3 s.h.**
Designed to help the student become literate in the language of film. It will introduce terminology, history, theory and technology of film. The student will take a critical look at the cinema, analyze the theory and techniques used by directors and writers, and critique a variety of works in a number of film genres. No prerequisites.
- MMAJ 249: *NEWS REPORTING* 3 s.h.**
This course develops basic reporting skills for beginning journalism students including interviewing, gathering and verifying information, covering a beat, and coverage of various types of news. The focus of the course is to help students develop in-field news reporting techniques. Prerequisite: MMAJ 140
- MMAJ 270: *TEMPORAL MEDIA* 3 s.h.**
Provides initial instruction on communicating via motion and passage of time. Includes the syntax of motion and production techniques in video and animation.
- NOTE: Communication majors must attain the minimum grade requirement of C or better in 300-400-level upper division MMAJ and CMST or graduate-level MMAJ courses.**
- MMAJ 302: *FILM PRODUCTION PLANNING* 3 s.h.**
This course is designed to give the student practice instruction in the process of film production. All aspects of film production are covered from pre-production to post-production, including location scouting, casting sessions, and on-location staging. Special emphasis is placed on roles and responsibilities of personnel. Prerequisite: MMAJ 270.
- MMAJ 311: *BROADCASTING PRINCIPLES AND PRACTICES* 3 s.h.**
Overview of the broadcasting industry, including history, technical aspects, station and network organization, sales, ratings, programming, and social and ethical influences. A foundation course for radio-TV career preparation, related fields of communication, and the development of knowledgeable consumers of broadcast media. No prerequisites.
- MMAJ 312: *PUBLIC RELATIONS PRINCIPLES AND PRACTICES* 3 s.h.**
Provides fundamental instruction in public relations practices, including program planning and evaluation, working with the media, writing for public relations, and coordinating special events and functions. Explores the structure and process of public relations in business, institutions, and American society through readings and discussion. Note: Undergraduate students completing MMAJ 312 may enroll in MMAJ 551. Grade of C or above in MMAJ 140.

- MMAJ 313: JOURNALISM PRINCIPLES AND PRACTICES 3 s.h.**
Examines the history and theory of the practice of journalism paying particular attention to First Amendment issues, the language of the media, changing conditions of information, ethics, and closely examining the role and organizations of a democratic press. Prerequisite: MMAJ 100 or 101.
- MMAJ 314: ADVERTISING PRINCIPLES AND PRACTICES 3 s.h.**
Introduces students to the basic principles, theories, and applications of the advertising field. Examines advertising's historical background, planning, and management, media strategies, creative development, international issues, and social and legal effects. Prerequisite: Grade of "C" or above in MMAJ 140.
- MMAJ 320: COMMUNICATION RESEARCH 3 s.h.**
Introduces students to quantitative research principles guiding mass communication professionals working in areas such as broadcasting, public relations, advertising, and journalism. Topics include audience measurement principles, polling research, survey construction and analysis, focus group research, mass media content analysis, and statistical analysis. Calculator required. Prerequisites: MMAJ 100 or 101.
- MMAJ 324: NEW MASS MEDIA TECHNOLOGIES AND PROFESSIONS 3 s.h.**
Introduces students to new mass media technologies that are changing the role of mass communication professionals working in broadcasting, public relations, advertising, and journalism. Topics include evolving mass media implementations of the Internet to reach audiences; evolving copyright issues and their impact on the mass media; discussion of new World Wide Web technologies such as animation formats, streaming media, and digital video production; new digital technologies and formats for broadcasting, and new multimedia technologies. Developing careers and challenges to older professions will be discussed in the context of mass media industry trends. Prerequisite: MMAJ 100 or 101.
- MMAJ 331: MEDIA ETHICS AND RESPONSIBILITIES 3 s.h.**
Prepares future professional communicators to make informed media decisions. Provides a historical, legal, cultural, and philosophical context for judgment of continuing and emerging issues in mass media fields, and creates an experimental frame through discussion, simulation, and modeling. No prerequisites.
- MMAJ 339: GLOBAL MASS COMMUNICATION 3 s.h.**
Enables students to effectively interact with the new culturally diverse audience and workforce in American business and industry. Covers the latest innovatively designed resources on cultural diversity, global mass communication competencies, and positive attitudes. Includes imaginative conceptualization techniques of designing mass media messages suited to the new realities of cultural diversity.
- MMAJ 340: NEWSWRITING 3 s.h.**
Explores the principles and practices of evaluating, gathering, and writing the fundamental news story and news feature. Includes preparation of copy for publication, interviewing, and laboratory experience. Prerequisite: MMAJ 140.
- MMAJ 341: PUBLICATIONS EDITING 3 s.h.**
Provides fundamental instruction in editing skills, copy editing, headline writing, typography, photographs, copy control, and layout. Examines the role and responsibilities of the editor. Prerequisite: MMAJ 371.
- MMAJ 344: INVESTIGATIVE JOURNALISM 3 s.h.**
Focuses on the skill and techniques used to gather in-depth information for investigative reporting. Students will learn interviewing, research, and organizational skills. In addition, the legalities and practicalities of information access will be covered. All of these skills will culminate in the production of an investigative journalism project spanning both written and recorded media. Prerequisites: MMAJ 202 and 340.
- MMAJ 345: NEWSWRITING FOR INTERNET MEDIA 3 s.h.**
This course develops reporting, writing and editing skills for internet delivery. Students understand the continuum of the cycle of news demanded by internet news sources, and the fundamental differences between online and traditional media. The internet requires reporters and writers to think differently about the structure, appearance and detail in news stories. Students will report, write and edit news stories for the internet that are interactive and nonlinear. Prerequisite: MMAJ 140.
- MMAJ 351: FIELD PRODUCTION 3 s.h.**
Provides students with training in television production and experience in the application of communication theory and production techniques. Integrates skills in writing, photography, audio, and graphics in a total production context. Prerequisite: MMAJ 270.
- MMAJ 353: STUDIO PRODUCTION 3 s.h.**
Develops basic skills in studio production techniques including producing, crew positions, lighting, and on-camera talent. Prerequisite: MMAJ 270.
- MMAJ 354: AUDIO PRODUCTION 3 s.h.**
Covers theory and advanced techniques of audio production for radio and video, from conception through completion, emphasizing multitrack, non-destructive, and non-linear production. Prerequisite: MMAJ 270.
- MMAJ 355: CINEMATOGRAPHY 3 s.h.**
Further develops skills in digital/film production by examining the use of lenses, light meters, advanced lighting techniques, and low-tech special effects. Students produce a number of projects that employ these techniques. The student will be able to provide shooting and lighting support to any kind of production and create a DVD resume reel. Prerequisite: MMAJ 351.
- MMAJ 357: DIGITAL/FILM EDITING 3 s.h.**
Introduces and researches aspects of digital and film post-production editing. The course includes the aesthetics and techniques of editing, application of editing techniques on Final Cut Pro, the video signal and components, and the role of the editor. Final Cut Pro certification is possible upon successful completion of the course and the Final Cut Pro certification exam. Prerequisite: MMAJ 351.

- MMAJ 370: NARRATIVE STRUCTURE** **3 s.h.**
Examines narrative screenwriting through all components of story and mythic structure and exemplar film scripts. Character development in relation to narrative structures is studied. Substantial writing is realized in the production of a synopsis, treatment and other pieces in preparation of a feature-length film script. Several major script components are also written.
- MMAJ 371: PUBLICATION DESIGN** **3 s.h.**
Teaches principles of visual communication in print and electronic publications. Students gain design and production skills through extensive application of these principles to a wide variety of publications. Prerequisite: MMAJ 140.
- MMAJ 372: SCREENWRITING** **3 s.h.**
Concentrates on the development, execution and formatting of a narrative short script. Designed in a lecture/workshop format, students produce a polished log line, synopsis, treatment, character profiles, and 20-minute screenplay. The course covers distribution, marketing strategies, and pitching a script. Prerequisite: MMAJ 370.
- MMAJ 375: PHOTOGRAPHY** **3 s.h.**
Provides basic principles of photography and intermediate principles of photojournalism. Study of camera and darkroom techniques including the production of photographs for news, advertising, scientific, and instructional use. Camera required. Prerequisite: Sophomore standing.
- MMAJ 417: PUBLIC RELATIONS CAMPAIGNS** **3 s.h.**
Explores the processes of public relations research, strategic planning, tactics and evaluation in creating and managing PR campaigns. Students will integrate theory and professional skills by analyzing existing PR campaigns and current events. The course culminates in a PR campaign that students create for an actual client. Prerequisites: MMAJ 140, MMAJ 312 and MMAJ 443, with a grade of "C" or above in each course.
- MMAJ 418: ADVERTISING CAMPAIGNS** **3 s.h.**
Provides theory and skills to create an advertising campaign for a selected product or service. Students will study and analyze existing advertising campaigns, write creative briefs, and conduct media planning and research. Students will learn to utilize traditional media (print, broadcast and outdoor), as well as nontraditional media (the Internet and other interactive media) to create effective campaigns. The course culminates in a comprehensive advertising campaign that students create for an actual client. Prerequisites: MMAJ 140, 314, and 446, with a grade of "C" or above in each course.
- MMAJ 422: COMMUNICATION LAW** **3 s.h.**
Introduces students to legal principles guiding mass communication professionals working in areas such as broadcasting, public relations, advertising, and journalism. Includes legal principles related to freedom of the press, libel, privacy, copyright, access to government documents, the rules and regulations of the Federal Communications Commission and the Federal Trade Commission, and the impact of new media technologies on legal principles concerning First Amendment, copyright, privacy, and mass media industry regulations. Prerequisite: MMAJ 100 or 101.
- MMAJ 424: MASS MEDIA CRITICAL ANALYSIS** **3 s.h.**
Explores critical methodologies and analysis of electronic media content and programming, emphasizing aesthetic, historical, social, cultural, and industrial factors affecting audience response. Prerequisite: MMAJ 100 or 101.
- MMAJ 425: MASS COMMUNICATION THEORY** **3 s.h.**
Provides survey and evaluation of current theories of mass communication, examining the role and application of each in mass media products, development, and industries. Students explore theories relative to the emergence of the mass press, the effects of mass communication, and media in contemporary society.
- MMAJ 426: TELECOMMUNICATIONS POLICY** **3 s.h.**
Provides a foundation in the U.S. policymaking process in telecommunications (broadcasting, cable, telephone, and the Internet). Examines the impact of technology and social influences on policymaking and the theoretical perspectives that drive policymaking. Prerequisite: MMAJ 100 or 101.
- MMAJ 427: ETHNICITY, GENDER, AND THE MEDIA** **3 s.h.**
This course investigates the role of ethnicity and gender in a variety of media. The course critically analyzes how the media has historically portrayed women and people of color, how they portray these groups today in a diverse, global media environment, and how these portrayals have influenced public opinion and public policy. The course also examines the historical and current role of women and minority communities in the media business. Prerequisite: MMAJ 100 or 101.
- MMAJ 430: PUBLIC RELATIONS ETHICS** **3 s.h.**
Addresses ethics and professional responsibility in public relations. Through study of theory, cases and current events, students will learn to identify the ethical and moral dimensions of issues that arise in the practice of public relations. Students will gain the knowledge and skills necessary to reach and justify ethical decisions, and a sense of personal and professional responsibility. Prerequisites: MMAJ 140, MMAJ 312 and MMAJ 443, with a grade of "C" or above in each course.
- MMAJ 438: MEDIA PROGRAM DESIGN FOR ORGANIZATIONS** **3 s.h.**
Develops skills in devising communication strategies to design and develop an organization's media programs for training purposes. Skill areas include drafting communication objectives, developing plans for using communication media for training, and evaluating communication media used for effectiveness. Emphasizes applying skills to produce communication media for training programs. Prerequisite: MMAJ 320 or permission of instructor.
- MMAJ 441: ADVANCED MEDIA WRITING** **3 s.h.**
Extensive work in research, writing, and marketing of written products for magazines, newspapers, and other publications. Requires selection and acquisition of appropriate photographs and graphics to complement the articles. Prerequisites: MMAJ 140.

- MMAJ 442:** *NEWSWRITING FOR ELECTRONIC MEDIA* **3 s.h.**
Provides students with advanced instruction and experience in writing and reporting news for radio, television, and World Wide Web media. Includes rewriting wire copy, using actualities, broadcast news interview techniques, broadcast news feature writing, rewriting and reformatting copy for Web media, and investigative reporting and research techniques. Prerequisite: MMAJ 140.
- MMAJ 443:** *PUBLIC RELATIONS WRITING* **3 s.h.**
Provides students with instruction and experience in writing for the public relations and advertising professions. Projects include news releases, media kits, advertisements, newsletters, brochures, and web pages. Coursework also stresses ethical and legal responsibilities of the public relations writer, research, persuasion, and visual elements of communication. Prerequisites: MMAJ 100 or 101, and 140.
- MMAJ 444:** *WORLD WIDE WEB PUBLICATION DESIGN* **3 s.h.**
Develops competencies in writing and editing copy for World Wide Web media. Students will learn to structure Web sites, layout copy, use color and text effectively, position images, and deploy sound and video. Students develop skills in editing public relations, advertising, and news-oriented Web sites. Prerequisite: MMAJ 371 or permission of instructor.
- MMAJ 445:** *DIGITAL/FILM PRODUCING* **3 s.h.**
Explores all aspects of the role of the producer for film. Students examine the business of film production, from the development of script proposals through final distribution, and become involved in all areas of script breakdown, storyboard development, planning, budgets, and legal aspects. Prerequisite: MMAJ 302.
- MMAJ 446:** *ADVERTISING COPYWRITING* **3 s.h.**
Introduces students to the theories and skills required to write effective advertising copy to market products, services and ideas. Students will learn copywriting techniques for media forms that are both traditional (print, broadcast and outdoor), as well as nontraditional (Internet and other interactive media). Topics include research, creative concepts and execution. Prerequisites: MMAJ 140 and 314, with a grade of "C" or above in each course.
- MMAJ 450:** *TELEVISION DIRECTING* **3 s.h.**
Develops the skills needed to direct a variety of television studio productions including news, interview, demonstration, and dramatic programs. Emphasizes technical and aesthetic directing skills. Prerequisites: MMAJ 351 or other television production experience and permission of the instructor.
- MMAJ 455:** *DIGITAL/FILM DIRECTING* **3 s.h.**
Provides students with hands-on experience as a single camera director. Students will critique professional directors and examine directing theories and techniques. Students will apply theory and techniques of script breakdown, directing talent and blocking, camera placement, shot execution, and communication of the director's vision to crew and talent. Students will direct a narrative short or one-act screenplay. Prerequisite: MMAJ 351.
- MMAJ 473:** *DOCUMENTARY FILM* **3 s.h.**
This course surveys the history, theory and style/genres of documentaries and reviews documentary production techniques culminating in individual student ten to twenty minute documentary productions. Prerequisites: MMAJ 445, MMAJ 455.
- MMAJ 474:** *ADVANCED WEB SITE DESIGN* **3 s.h.**
Provides students with advanced design strategies and techniques for implementing World Wide Web sites. Topics include advanced strategies for structuring Web sites aimed at journalism, broadcasting, corporate, and public relations functions; structural designs to meet a variety of audience needs; working with advanced Web design layout strategies and techniques; and implementing Web-based multimedia formats. Prerequisite: MMAJ 444.
- MMAJ 476:** *SHORT FILM* **3 s.h.**
A film production course. Students will make up a crew that will produce a feature-style film short. The capstone course in the film concentration applies previous coursework and experience to the creation of a major work and allows students the full expression of the concentration. Prerequisites: MMAJ 445, 455.
- MMAJ 482:** *INTERNSHIP* **6-12 s.h.**
Students apply theory and techniques to communication tasks of a cooperating business, industry, agency, or institution. Students must obtain approval of a detailed proposal before registering for the course. The determination of credit hour production is to be made in consultation with the internship advisor, in compliance with the media organization's policies, and in consideration of the intensity of the internship experience. Prerequisites: 80 credits completed, and a minimum of 2.5 QPA.
- MMAJ 491:** *INDEPENDENT STUDY* **1-3 s.h.**
Allows imaginative students to structure an independent research project in the area of communication with a minimum of faculty supervision. A proposal specifying objectives, methods, and evaluation techniques must be submitted to and approved by the student's advisor and dean.
- MMAJ 499:** *SPECIAL TOPICS IN COMMUNICATION* **1-3 s.h.**
Focuses on a single, broad contemporary topic of current interest in communication and related fields. Course content varies from semester to semester. Topics to be considered will be announced in advance. May be taken three times for credit.

Computer Information Science

Department of Computer Information Science

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Assistant Professors: Childs, Wyatt

Welcome to the eye of the hurricane! In a world going through dramatic change, the field of Computer Information Science (CIS) stands at the center of the turmoil, designing, creating, and maintaining the technology and the systems that are central to the way the world works. Whether it's e-commerce, information retrieval via the World Wide Web, financial transactions at a local bank, or rockets blasting into space, computer scientists and information specialists are responsible for the hardware and software systems used for these endeavors. And although the changes in the world seem chaotic, there is calm at the center of the turmoil where the computer scientist and information specialist proceed methodically using the tools of industry, logic and mathematics and an evolving engineering discipline to shape this new world being built.

At Clarion, we have faculty who have many years of real world experience and many years of teaching and sharing that experience with students. Students develop software for a variety of computing platforms including mainframe and personal computers and the networks linking them together. Software experience includes C#, Java and others. At Clarion, the CIS student gets the full attention of the faculty who are in the classroom and in the labs helping the students learn. There is a dramatic need for people to come join the ranks of the professionals that are quietly changing the world. If you are bright, energetic, and persistent and love to solve difficult problems in creative ways, come join us.

COMPUTER SCIENCE, B.S.	64 credits
Required: CIS 202, 244, 253, 254, 306, 355, 356, 375, 411, 412, 460; CIS/MATH 140; MATH 260 or 270; ECON 221, PHIL 311; and 18 credits of approved CIS electives.	
INFORMATION SYSTEMS, B.S.	66 credits
Required: CIS 110, 202, 206, 217, 301, 303, 317, 330, 402, 403, 411; MATH 131, 232; ECON 211, 212; ECON 221 or MATH 221; ACTG 251, 252; FIN 370; MGMT 320; MKTG 360; and 9 credits of approved CIS electives.	
COMPUTER SCIENCE, MINOR	18 credits
Required: CIS 202, 244, 254; and 9 credits of approved CIS electives in courses 300-level or above.	
INFORMATION SYSTEMS, MINOR	18 credits
Required: CIS 110, 202, 301 and 9 credits of approved CIS electives in courses 300-level or above.	

Computer Information Science Courses

- CIS 110:** *INTRODUCTION TO COMPUTER INFORMATION SYSTEMS* **3 s.h.**
 Surveys the needs for, and roles of, computer information systems in contemporary society. Designed to satisfy the need of students from every discipline to be "computer literate," and provides the necessary basis for further computer-related studies. Emphasizes computer requirements in organizations, history, hardware concepts, programming, application software, systems development, and computer operations.
- CIS/MATH 140:** *ESSENTIAL TOPICS IN DISCRETE MATHEMATICS FOR COMPUTER SCIENCE* **3 s.h.**
 An introduction to the discrete mathematics essential for course work in computer science. Elementary coverage of proofs including mathematical induction, sets, functions, relations, Boolean algebra, number theory, combinatorics, analysis of algorithms including recursive algorithms, matrices, and the logic of control and data storage through hand computation. The course should be taken in a computer science major's first year. It is a prerequisite for upper division required major courses in the computer science major. A successful student should be able to apply the concepts taught to problem solving in computer science.
- CIS 202:** *INTRODUCTION TO PROGRAMMING AND ALGORITHMS* **3 s.h.**
 Introduces algorithms and translation of algorithms into a programming language. Student will create algorithms and computer programs that implement those algorithms. Will learn programming language syntax and programming fundamentals including variables, input and output, arithmetic and logical operations, control flow (sequence, selection, iteration), file access and modular development. Computer language used may change over time, but an example language would be C# (C Sharp).
- CIS 206:** *INTRODUCTION TO JAVA PROGRAMMING* **3 s.h.**
 Introduces the Java programming language. Designed to expose information systems majors to a second programming language (after C#). Involves programming Java applets and Java applications. Students learn the core of the language including its data types, arithmetic statements, selection statements, repetition statements, arrays, and string processing features. Object-oriented programming concepts are introduced but are not the focus of the course. Other topics include Java's windowing toolkits, file input and output, exception handling, and the Java security model. Prerequisite: CIS 202. Not for credit for CS majors.
- CIS 217:** *APPLICATIONS OF MICROCOMPUTERS* **3 s.h.**
 Introduces the basic concepts of microcomputers and software applications. Includes commonly available software packages and graphics. No prerequisite.
- CIS 230:** *PRACTICUM IN COMPUTER INFORMATION SCIENCE* **1-2 s.h.**
 Provides undergraduate students with an introduction to the role of computer specialists in the everyday operation of a computer laboratory. Supplies real experience in such routine exercises as interacting with computer users to field problems and complaints, machine event logging, and performing simple tasks to keep machines operating. A maximum of six credits of the practicum may be applied toward graduation. Prerequisite: CIS 217 or permission of the instructor.

- CIS 244:** **INTRODUCTION TO PROGRAMMING AND ALGORITHMS II** **3 s.h.**
Examines complex problem-solving techniques, top down design, and program debugging and testing. Prerequisite: B or better in CIS 202 or permission of instructor.
- CIS 253:** **COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE** **3 s.h.**
Consists of two major parts: (1) an introduction to assembly language programming and (2) an introduction to computer organization and the structuring of major hardware components. Students develop a basic understanding of the mechanics of information transfer and control and the fundamentals of logic design. Prerequisite: CIS 206 or CIS 244 or CIS 330.
- CIS 254:** **DATA STRUCTURES** **3 s.h.**
Introduces the structuring of data in computer programs. Topics include static, dynamic, and persistent memory, linked lists, stacks, queues, trees, and hash tables. The major concepts are reinforced through programming assignments using algorithms illustrating the power of each data structure. Prerequisite: CIS 244.
- CIS 270:** **CLIENT-SIDE WEB PROGRAMMING** **3 s.h.**
Student will explore front-end, client-side web development emphasizing programming in a client-side programming language such as JavaScript or VBScript. Human-computer interface issues will also be explored as well as basic web page markup (HTML, XHTML) and display (CSS). Student will also look at HTML validation issues and implications of different browser usage on web page rendering. Prerequisite: CIS 202.
- CIS 301:** **COMPUTER SYSTEMS ANALYSIS** **3 s.h.**
Study of informational needs and patterns of information flow within a large organization. Emphasizes the analysis and design of computer software systems. Examines ethical and legal issues related to information systems. Prerequisites: CIS 217 and 202 or 244.
- CIS 303:** **LOCAL AREA NETWORKS** **3 s.h.**
Study of the technology of local area networks. Includes LAN design, topology, hardware, standards, protocols, and network operating systems. Includes significant hands-on experience building a LAN and installing network interface cards and cable. Prerequisite: CIS 202.
- CIS 305:** **ARTIFICIAL INTELLIGENCE IN DECISION-MAKING** **3 s.h.**
Surveys the thinking and some of the pioneering efforts in the area of artificial intelligence (AI), integrated with more traditional approaches to decision-making. Applies AI principles through the use of logic programming languages. Prerequisite: CIS 202.
- CIS 306:** **OBJECT-ORIENTED PROGRAMMING** **3 s.h.**
Introduces a popular object-oriented programming language. Emphasizes object-oriented features of the language: classes and objects, encapsulation, inheritance, and virtual functions. Exposes students to both the syntax and semantics of the language. Applying these features, students complete several small programming projects. Smalltalk and Java are examples of languages that might be chosen. Prerequisite: CIS 206 or 244.
- CIS 312:** **SPECIAL TOPICS IN COMPUTING** **3 s.h.**
Provides for focused study of a special interest topic in computing using learning formats selected by the instructor as best suited for the particular course. Prerequisites for particular course set by the instructor.
- CIS 317:** **MICROCOMPUTER MAINTENANCE CONCEPTS AND TECHNIQUES** **3 s.h.**
Covers the installation, configuration, upgrading, troubleshooting and repair of microcomputer hardware. Includes basic networking concepts and printers. Knowledge of safety and common preventive maintenance procedures is stressed. Prerequisite: CIS 217.
- CIS 330:** **INFORMATION SYSTEMS PROGRAMMING** **3 s.h.**
In-depth study of event-driven programming with a concentration on the retrieval, updating, and reporting of information stored in a database. Prerequisite: C or better in CIS 202 or permission of instructor.
- CIS 333:** **INFORMATION SYSTEMS AUDITING AND SECURITY** **3 s.h.**
Analyzes the information system audit process, provision and evaluation of controls in all aspects of information system operation, and the provision and maintenance of computer security. Stresses internal controls while examining specific controls and security. Prerequisite: CIS 303.
- CIS/MATH 340:** **DISCRETE MATHEMATICAL STRUCTURES** **3 s.h.**
Introduces sets, relations, functions, combinations, graphs, and trees, emphasizing concrete models. Includes computer algorithms and mathematical structures useful in computer science. Designed for students in both mathematics and computer science. Prerequisites: MATH 300 and CIS 202.
- CIS 355:** **OPERATING SYSTEMS** **3 s.h.**
Covers the functions of operating systems, the design of operating systems at the register transfer and programming levels, and the important relationships between operating systems and computer hardware. Prerequisites: CIS 253 and 254
- CIS 356:** **ANALYSIS OF ALGORITHMS** **3 s.h.**
Analysis of algorithms represented in computer programs. Topics include correctness and performance of code used in searching, sorting, and solving mathematical problems. Prerequisites: CIS/MATH 140, CIS 254 and MATH 260 or 270.
- CIS 370:** **SERVER-SIDE WEB PROGRAMMING** **3 s.h.**
Covers web programming focusing on the web server side of the client/server architecture. Students will learn the fundamentals of secure, dynamic, web application development using one or two of the most popular tool sets. Topics covered include web server setup, database setup, user authentication, session management, client/server interaction, and using the tool set to develop database driven web sites. One example of a tool set would be PHP as the programming language, MySQL as the database, and Apache as the web server. Prerequisite: CIS 270.
- CIS 375:** **SOFTWARE ENGINEERING** **3 s.h.**
Introduces the student to the basic concepts and ideas surrounding the discipline of software engineering. The student will analyze and design and implement one or more software projects. The language used will vary. Prerequisites: CIS 254 and 306.

Cooperative Engineering Program

Coordinator: John Heard, Ph.D.

Professors: Bering

Assistant Professors: Aravind, Childers, Heard

Clarion University has cooperative engineering agreements with the School of Engineering at the University of Pittsburgh and with the Case Institute of Technology of Case-Western Reserve University. Students in this program attend Clarion for three years and one of the engineering schools for two years, earning a B.S. degree in physics, chemistry, or mathematics from Clarion and an engineering degree from the engineering school. Students with a cumulative 3.0 QPA are virtually guaranteed admission to the engineering school. Students with a cumulative QPA between 2.75 and 3.0 are considered for admission to the engineering school.

Economics

Economics is the social science that studies human material needs, and how to maximize well-being with available resources. Household, government and business decisions are studied, as are trade and specialization among individuals and nations.

Clarion's Bachelor of Arts (B.A.) in Economics degree provides a traditional liberal arts education by combining economics courses with courses in other social sciences, such as history and political science. Students find this program suitable for postgraduate work in law, business and economics, or for beginning a career immediately after graduation. Many positions are open to economics graduates. A minor in economics is also offered, which complements many arts and science majors.

The Economics Department at Clarion has an exceptionally high Ph.D. coverage, and its low student-faculty ratio for majors promotes high-quality instruction and personal attention. Internships tailored to students' personal interests can be arranged with business, government and nonprofit institutions. Located in Still Hall, the department has excellent classroom and computer facilities.

The Economics Department sponsors the Political Economy Club and a chapter of Omicron Delta Epsilon, the international honor society in economics.

ECONOMICS, B.A.45 credits

Required: ECON 211, 212, 310, 311 and 21 credits of 300- and 400-level economics courses chosen in consultation with a department advisor. In addition to these 33 credits, the following are required:

- a. PS 210, PS 211
- b. One course from HIST 120 or 121
- c. One course from ANTH 211, SOC 211, PSY 211

In addition, the B.A. degree requires a competency in either foreign language [the student must pass the final exam for the second year (Intermediate II) or an equivalent thereof] or quantitative skills (the student must take ECON 221, ECON 222, and demonstrate mathematics competency on the level of MATH 232 or MATH 270).

Engineering

See Cooperative Engineering Program, on this page, and Pre-professional Studies in Engineering, page 118.

English

Department of English, Elizabeth MacDaniel, Ph.D., Chair

210A Davis Hall

Telephone: 814-393-2159

E-mail address: emacdaniel@clarion.edu

Website: www.clarion.edu/english

Professors: Fink, Leary, Luthin, MacDaniel, Stemmler, Terman, Xu

Associate Professors: Bodziock, Foster, Lane, McCarrick, K. Smith, Welsh

Assistant Professors: Chambers, Downes, Knepper, Pack, Roberts, Rosati, Sarbin, Smart

There are few undergraduate majors that provide a person with the critical literacy and multicultural awareness essential for success in any field as does English. Since writing and reading literature are forms of self-discovery, as an English major you will learn how to express your own insights, values, and opinions. In addition you also will deepen your appreciation and knowledge of the world. Close reading, analytical writing, and critical/creative thinking are universally important skills that will serve the English major well in a variety of rewarding and competitive careers. The worlds of education, teaching, law, human services, marketing, advertising, publishing, public relations, and management welcome with open arms the literate, critical thinker who can write, read comprehensively, and develop convincing arguments with coherence and sharp focus.

As an English major at Clarion University, you will work with professors who are committed to teaching excellence. Our faculty is sensitive to the mosaic of critical and creative writing, literature, and multiculturalism that English studies offers students. As an English major at Clarion, you may choose among many fields of study: Literature (American, British, World, Women's, Multi-Ethnic, Young Adult); Writing (Creative, Critical, Professional); Linguistics; Culture Studies (Film, Folklore, Critical Theory). Beyond course work, you can become active in our English Club, Sigma Tau Delta (the International English Honor Society), Study-Abroad Program, Women's Reading Group, student magazines (*Tobeco* and *BaZaar*), and the Visiting Writers Program. Your personal and professional growth as a Clarion English major will prepare you to meet the world with confidence, critical literacy, and sophistication.

The English Department also is home to the university's Writing Center which provides assistance to all students in their efforts to become better writers. (See page 28 for details.) Students who work as writing consultants in the Center can earn College Reading and Learning Tutor Certification.

ENGLISH, B.A.54 credits

Required: ENG 199; ENG 221 or 222; ENG 225 or 226; ENG 227 or 228 (NOTE: at least one of the surveys must come from the first half of a sequence, and at least one of the surveys must come from the second half of the sequence); ENG 262; 355; one American literature course at 300-/400-level; one English literature course at 300-/400-level; one world literature course at 300-/400-level; ENG 499.

In addition to these 39 credits, the students must also, in consultation with their advisor, select 15 hours, nine of which must be at the 300-/400-level, that reflect one of the following areas of specialization:

- **General literature:** Two additional 200-level surveys plus three additional* literature courses at the 300-/400-level.
- **Comprehensive:** Two additional 200-level surveys, two additional* literature courses at the 300-/400-level, and a linguistics course, preferably ENG 458.
- **Writing:** 15 credits. Choose from the following writing courses: ENG 200, 202, 207, 297, 298, 301, 303, 304, 306, 307, 356, 381, 404, 480, and 482.
- **Multicultural literature:** ENG 230 and 365 are required (6 credits); one additional multicultural literature course from among the following: ENG 227, 228, 231, 241; two additional multicultural literature courses from among the following offerings: ENG 331, 354, and 454.
- **Cultural studies:** Three courses (9 credits) from among the following offerings: ENG 150, 242, 250, and 353; two additional courses—any one of the preceding not already used, ENG 350, and 352.
- **Linguistics:** ENG 262, 353, 457, 458, 459, 462, 463; ENG380/ ANTH 380.
- **Movie studies and drama:** One movie studies course (ENG 256, 350), one drama course (ENG 140, 342, 343, 344, 345, 455), one Shakespeare course (ENG 412, 413), plus any two additional courses in movie studies, drama, and/or Shakespeare.

An additional, nine hours of 300-/400-level English electives must also be taken.

*Excluding linguistics, folklore, and movie studies

SECONDARY EDUCATION, B.S.Ed.

Certification for grades 3-12 English (see under Secondary Education English), page 157.

In addition, the English Department offers four minors, one in literature and three in writing.

ENGLISH: LITERATURE, MINOR.....18 credits

Students pursuing the minor in English: Literature must successfully complete two of the 200-level survey courses listed below (B).

- A. ENG 199: Introduction to English Studies
This course is required of all students pursuing the minor in English: Literature. Ideally, it should be taken as the initial course in the program.
- B. ENG 221: English Literature: Beginnings to 1800
ENG 222: English Literature: 1800 to Present
ENG 225: American Literature: Beginnings to 1860
ENG 226: American Literature: 1860 to the Present
ENG 227: World Literature: Backgrounds and Traditions
ENG 228: Modern and Contemporary World Literature
ENG 230: Introduction to African-American Literature
- C. Students must also successfully complete any three literature courses to be selected from ENG 311 through ENG 455 (except

ENG 353 and ENG 356).

ENGLISH: PROFESSIONAL WRITING & RHETORIC, MINOR..... 18 credits

- A. Required Writing Course (3 credits)
ENG 207: Research Methodology and Writing
- B. Additional Writing Courses (15 credits; at least nine of which must be at the 300-400 level)
ENG 263: English Grammar and Usage
ENG 297: Writing and Visual Rhetoric
ENG 298: Argument and Persuasion
ENG 301: Writing Non-Fiction Prose
ENG 306: Scientific and Technical Writing
ENG 307: Business Writing
* ENG 356: Rhetorical Theory for Writers
ENG 381: Documentary Writing
* ENG 480: Writing for the Professions
ENG 482: Composition: Theory and Practice

ENGLISH: CREATIVE WRITING, MINOR.....18 credits

- A. Required:
ENG 202: Beginning Creative Writing
ENG 404: Advanced Creative Writing
- B. Additional required credits (two of the following):
ENG 301: Writing Non-Fiction Prose
ENG 303: The Craft of Fiction
ENG 304: The Craft of Poetry
THE 356: Playwriting and Script Construction
- C. Two of the following (one from each group):
Group 1
ENG 130: Literary Experience
ENG 140: Drama as Literature
ENG 256: Movie Studies
Group 2
ENG 242: Intro to American Folklore
* ENG 329: Contemporary American Literature
ENG 339: Short Stories
ENG 341: 20th Century Poetry
ENG 353: American Voices

ENGLISH: WRITING, MINOR..... 18 credits

- A. Required Writing Course (3 credits)
ENG 207: Research Methodology and Writing
- B. Additional Writing Courses (15 credits)
ENG 202: Beginning Creative Writing
ENG 263: English Grammar and Usage
ENG 297: Writing and Visual Rhetoric
ENG 298: Argument and Persuasion
ENG 301: Writing Non-Fiction Prose
ENG 304: The Craft of Poetry
ENG 306: Scientific and Technical Writing
ENG 307: Business Writing
* ENG 356: Rhetorical Theory for Writers
ENG 381: Documentary Writing
ENG 404: Advanced Creative Writing
* ENG 480: Writing for the Professions
ENG 482: Composition: Theory and Practice

English Courses

ENG 110: WRITING I

3 s.h.

Introduces students to the composing strategies of college writing through a gradual progression from expressive discourse toward explanatory discourse. When necessary, work is done in punctuation, grammar, and spelling. Each semester.

ENG 111: COLLEGE WRITING

3 s.h.

Emphasizes development of critical thinking through analytical and argumentative writing and introduces students to research writing. Each semester. (Credit for advanced placement English or satisfactory SAT verbal scores does not exempt the student from fulfilling the university writing requirement.) If they have received credit for courses equivalent to either or both our ENG 110 and ENG 111, such transfer credit must be documented on a checksheet from the Office of the Registrar. Unless exempt, all students must take ENG 111. I (After taking ENG 111, students may not enroll in ENG 110.)

- ENG 115:** *COMPOSITION FOR INTERNATIONAL STUDENTS* **3 s.h.**
 Helps ESL writers to develop an understanding of the English grammar system, to discern the systematic patterns that exist in the language, to develop a vocabulary in order to express their ideas in English, and to recognize the rhetorical structure of the language. Satisfies the requirement for ENG 111.
- ENG 130:** *THE LITERARY EXPERIENCE* **3 s.h.**
 Provides a wide selection of literature to introduce the student to various literary genres. No prerequisite. Recommended for all students. Not for declared B.A. English majors. Each semester.
- ENG 140:** *INTRODUCTION TO DRAMA AS LITERATURE* **3 s.h.**
 Introduces students to the structures and strategies playwrights use to create different experiences for their readers. Draws on a variety of plays to focus on how to read a dramatic text so as to perceive the special cues it uses to stimulate imaginative engagement and how the text can be translated into theatrical performance. No prerequisites.
- ENG 160:** *DISCOVERING LANGUAGE* **3 s.h.**
 Introduces students to the world of language—how it works, how it’s used, what it’s made of, what it does, and the myriad ways that language shapes and affects our lives and experience of the world.
- ENG 1498:** *INTRODUCTION TO ENGLISH STUDIES: RHETORIC AND POETICS* **3 s.h.**
 Introduces students to reading, writing, and interpreting texts, and to different theoretical and critical approaches within English Studies. Students will learn and apply rhetorical theories and strategies for the analysis and production of texts. Emphasis on research methods and writing within the discipline. Course fulfills General Education English 111 requirements (I.A.) for English majors.
- ENG 199:** *INTRODUCTION TO ENGLISH STUDIES* **3 s.h.**
 Designed for and required of English majors. Provides intensive introduction to reading, discussing, and writing about literature. A small number of texts will be read, allowing for an introduction to different theoretical and critical approaches to English studies. Students will apply various theories as they analyze texts. Students will use research techniques appropriate for English majors. Prerequisite: Exemption from or successful completion of the general education writing requirement. Spring, annually.
- ENG 200:** *COMPOSITION AND LITERATURE* **3 s.h.**
 Stresses the writing of papers as a direct result of reading, analysis, discussion, and interpretation of a variety of literary types. Examines fiction, plays, essays, and poems from various cultural perspectives. Addresses research techniques and related skills. Includes studies of women and minority writers. Prerequisite: Exemption from or successful completion of the general education writing requirement. Each semester.
- ENG 202:** *BEGINNING CREATIVE WRITING* **3 s.h.**
 Introduces the techniques of creative writing in prose and poetry. Emphasizes writing practice for students and opportunities for guidance and critical examination of their work. Prerequisite: Exemption from or successful completion of the general education writing requirement.
- ENG 207:** *RESEARCH METHODOLOGY AND WRITING* **3 s.h.**
 Teaches how to conduct research and how to write a research paper. Prerequisite: Exemption from or successful completion of the general education writing requirement. Each semester.
- ENG 221:** *ENGLISH LITERATURE: BEGINNINGS TO 1800* **3 s.h.**
 Surveys English literature and its historic, intellectual, and cultural contexts beginning with Beowulf and extending through the works of such writers as Chaucer, Shakespeare, Milton, Pope, Swift, Dryden, and Johnson, and provides highlights of the development of modern English. Fall, annually.
- ENG 222:** *ENGLISH LITERATURE: 1800 TO PRESENT* **3 s.h.**
 Surveys English literature from circa 1800 and includes selected works of such major writers as the Wordsworths, Coleridge, the Shelleys, Keats, Tennyson, Browning, Arnold, Woolf, Joyce, Eliot, and Lessing. Spring, annually.
- ENG 225:** *AMERICAN LITERATURE: BEGINNINGS TO 1860* **3 s.h.**
 Surveys major periods and writers of American literature from its beginnings to 1860. Enables students to understand the continuities and discontinuities of American literature. Includes writings by traditional male and female authors, as well as minority authors. Instructors may use historical and/or thematic approaches. Fall, annually.
- ENG 226:** *AMERICAN LITERATURE: 1860 TO THE PRESENT* **3 s.h.**
 Surveys major periods and writers of American literature from 1860 to the present. Enables students to understand the continuities and discontinuities of American literature. Includes writings by traditional male and female authors, as well as minority authors. Instructors may use historical and/or thematic approaches. Spring, annually.
- ENG 227:** *WORLD LITERATURE: BACKGROUNDS AND TRADITIONS* **3 s.h.**
 Examines some of the world’s most influential literature, providing an overview of literary history from antiquity into the 19th century. Considers Asian, Middle Eastern, and pre-colonial American literatures as well as works from the European tradition. Fall, annually.
- ENG 228:** *MODERN AND CONTEMPORARY WORLD LITERATURE* **3 s.h.**
 Surveys international literature from the past 150 years, with a focus on the fiction, drama, and poetry of significant authors. Studies national literatures within their respective social, historical, and geographical contexts, with an effort to identify cross-cultural developments. Spring, annually.
- ENG 230:** *INTRODUCTION TO AFRICAN–AMERICAN LITERATURE* **3 s.h.**
 Provides insight into the African-American experience through the reading and discussion of the works of African-American writers who have made significant contributions to literature. Includes various genres: poetry, short fiction, drama, film, the novel, autobiography. No prerequisite.
- ENG 231:** *INTRODUCTION TO ASIAN–AMERICAN LITERATURE* **3 s.h.**
 Provides an overview of Asian-American literature, introducing students to representative authors from its various periods of development, emphasizing contemporary works in different genres. No prerequisite.

- ENG/ANTH 242:** **INTRODUCTION TO AMERICAN FOLKLORE** **3 s.h.**
 Introduces the major genres of American folklore: legend, tale, folk belief, song and ballad, and material folk culture; and various folk groups in America: occupational, gender, ethnic, age, regional, and their traditions. Analyzes examples of American literature and American popular culture through an examination of their American folk elements. Provides students with fieldwork experiences and methods of analysis of oral, customary, and literary traditions. No prerequisite. Fall, annually.
- ENG 140:** **INTRODUCTION TO DRAMA AS LITERATURE** **3 s.h.**
 Introduces students to the structures and strategies playwrights use to create different experiences for their readers. Draws on a
- ENG 243:** **THE ENGLISH BIBLE AS LITERATURE** **s.h.**
 Offers a literary, historical and folkloric approach to the Bible in English. Students will read much of the Bible, using a modern English translation of the King James version. Students will place the readings in their literary, cultural, historical and geographical contexts, approaching the Bible as an anthology of sorts, containing writings of considerable literary merit, and literary and cultural interest.
- ENG 249:** **SATIRE** **3 s.h.**
 Provides an understanding of what satire is, what it accomplishes, and how it is related to other literary modes. Students will analyze subjects often targeted by satirists, such as racism, sexism, etc., and satiric techniques in such forms as fiction (which will include short stories by women and minority writers), poetry, art, music, films, and television satire. No prerequisite. Fall, annually.
- ENG 250:** **STUDIES IN WESTERN MYTHOLOGY** **3 s.h.**
 Concentrates on Greco-Roman myth and legends to demonstrate the systematic nature and recurrent patterns of mythology. Designed to give students a thorough knowledge of content and to clarify questions of form. No prerequisite. Spring, annually.
- ENG 254:** **MOVIE STUDIES** **3 s.h.**
 Explores how movies “mean” through readings of various classic and popular texts, how movies construct viewers, and how they simultaneously mirror and create the cultures of which they are a part. Prerequisite: Successful completion of Gen. Ed. writing requirement. Each semester.
- ENG/ANTH 262:** **INTRODUCTION TO THE ENGLISH LANGUAGE** **3 s.h.**
 Addresses the nature of language, specifically with the grammatical structures of modern English, its regional and social varieties, and certain highlights of its historical development. Each semester.
- ENG 263:** **ENGLISH GRAMMARS AND ENGLISH USAGE** **3 s.h.**
 Provides an intensive study of English grammar and problems in usage. Emphasizes differences between prescriptive and descriptive approaches to usage, and between traditional and generative approaches to grammar. Each semester.
- ENG 265:** **SURVEY OF WOMEN’S LITERATURE** **3 s.h.**
 Surveys women writers from the Medieval period to the present. The contributions of these women to a distinctly female literary tradition provides the focus of study, but critical issues regarding women’s literature will also be discussed and explored. Pedagogical techniques will include lecture, discussion, film, and collaborative learning, among others. Fall, annually.
- ENG 270:** **TRAINING FOR WRITING CENTER TUTORS** **1 s.h.**
 In conjunction with weekly staff meetings throughout the semester, tutors learn methods of responding to student writing, implementing corrective measures, and teaching as well as using word processing. Tutors are accepted by invitation only on the basis of performance in writing courses; minimum 3.0 QPA. Venango Campus only. Each semester.
- ENG 297:** **WRITING AND VISUAL RHETORIC** **3 s.h.**
 Provides instruction in composing a visual, rhetorically driven argument based on an alphabetic text traditionally taught in composition classrooms. Elements of composition instruction such as planning, organization, rhetorical choices, audience awareness, purpose, and argument provide the foundation for written and visual assignments.
- ENG 298:** **ARGUMENT AND PERSUASION** **3 s.h.**
 Offers advanced practice in analyzing and creating argumentative and persuasive texts, both written and visual. Students will analyze, write about, and produce written and visual arguments and persuasive texts in popular, political, legal, and academic fields. Includes readings, writing, research, and presentations.
- ENG 301:** **WRITING NON-FICTION PROSE** **3 s.h.**
 Provides experience in writing non-fiction. Focuses on any of several types of non-fiction, including formal essay, autobiography, and creative non-fiction. Students will also study published examples of the genre under consideration and will critique examples presented by peers. Prerequisite: Exemption from or successful completion of the general education writing requirement. Each semester.
- ENG 303:** **THE CRAFT OF FICTION** **3 s.h.**
 Provides extensive practice in writing fiction. Student work receives intensive group critique. Course standards roughly approximate those of commercial fiction editors. Prerequisite: ENG 202 or permission of instructor, based on examination of writing samples. Spring, even-numbered years.
- ENG 304:** **THE CRAFT OF POETRY** **3 s.h.**
 Provides the advanced writer intensive practice in the writing of poetry. Students must produce a portfolio of high-quality poetry by the end of the course. Prerequisite: ENG 202 or permission of instructor based on examination of writing samples. Spring, annually.
- ENG 306:** **SCIENTIFIC AND TECHNICAL WRITING** **3 s.h.**
 Provides experience in writing practical prose in a variety of scientific and/or technical settings for a broad spectrum of readers. Involves techniques of writing documents of definition, mechanism, and process description; sets of instructions; proposals and reports; and the use of appropriate document and graphic designs. Especially useful to majors in biology, chemistry, computer science, laboratory technology, nursing, physics, and others. Prerequisite: Junior standing. Spring, odd-numbered years.
- ENG 307:** **BUSINESS WRITING** **3 s.h.**
 Uses specialized formats and the composing process to introduce the unique type of writing used in the business and organizational world. Emphasizes identifying and addressing diverse audiences with the specific messages needed. Students critique all types of communications, use collaborative learning techniques, and develop skills needed to communicate in a pluralistic society. Requires students to compose letters, memos, persuasive messages, and reports. All documents must be typewritten. Prerequisite: Exemption from or successful completion of the general education writing requirement. Each semester.

- ENG 311:** *STUDIES IN 16TH-CENTURY LITERATURE* **3 s.h.**
Examines the non-dramatic literature of the 16th century and focuses on such figures as Sidney, Spenser, and Shakespeare. Spring, odd-numbered years.
- ENG 313:** *STUDIES IN 17TH-CENTURY LITERATURE* **3 s.h.**
Provides critical examination of the works, genres, and contexts of such figures as Bacon, Browne, Jonson, Donne, Herbert, Marvell, and Milton. Fall, odd-numbered years.
- ENG 315:** *STUDIES IN 18TH-CENTURY LITERATURE* **3 s.h.**
Provides a critical examination of the words, contexts, and genres of such representative writers as Dryden, Pope, Swift, Defoe, Johnson, Boswell, and Gray, and traces the rise of the modern novel from Defoe through Austen and the role of women as authors and audience. Spring, even-numbered years.
- ENG 317:** *STUDIES IN ENGLISH ROMANTIC LITERATURE* **3 s.h.**
Considers the major works of Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries such as Mary Shelley, Mary Wollstonecraft, and others, and relates them to the intellectual, political, and social currents of the time. Spring, even-numbered years.
- ENG 319:** *STUDIES IN VICTORIAN LITERATURE* **3 s.h.**
Focuses on such poets and essayists as Carlyle, Newman, Tennyson, the Brownings, Arnold, the Rossettis, and Meredith. Examines the current renewal of interest in poetry by women and noncanonical writers. Spring, odd-numbered years.
- ENG 324/SOC 324:** *IMAGES OF WORKING-CLASS LIFE* **3 s.h.**
Examines the experience of working-class people from a number of perspectives: non-fiction, fiction, poetry, song, drama, film. Focuses on themes of class, identity, cultural influences, and economic and political power as they explicitly relate to the issue of work. Offered annually. Prerequisite: ENG 111, ENG 198, or HON 129
- ENG 325:** *STUDIES IN EARLY AMERICAN LITERATURE* **3 s.h.**
Explores various topics in 17th- and 18th-century American literature against the backdrop of Puritanism. Bradstreet, Taylor, Edwards, Franklin, and Wheatley are among the major figures encountered. Gives attention to the dynamics of molding a distinctively national literature. Spring, even-numbered years.
- ENG 326:** *STUDIES IN AMERICAN ROMANTICISM* **3 s.h.**
Studies a selected group of writers to illustrate their contributions to American art and thought and their relationships with the development of Romanticism in the first half of the 19th century. Emphasizes Poe, Hawthorne, Melville, Emerson, Thoreau, and Whitman. Fall, odd-numbered years.
- ENG 327:** *STUDIES IN AMERICAN REALISM AND NATURALISM* **3 s.h.**
Studies a selected group of writers to illustrate the development of realism and naturalism in American literature in the latter half of the 19th century. Emphasizes Twain, James, Howells, Crane, Norris, and Dickinson. Spring, even-numbered years.
- ENG 328:** *STUDIES IN AMERICAN LITERATURE FROM 1900 TO 1945* **3 s.h.**
Examines the period less as a unified site to be “surveyed” in terms of fiction, poetry, and drama than as a problematic field to be studied in terms of race, gender, and class. Authors include Wharton, Cather, Dos Passos, Hemingway, Hurston, and Faulkner. Fall, annually.
- ENG 329:** *STUDIES IN CONTEMPORARY AMERICAN LITERATURE* **3 s.h.**
Investigates the very idea of a canon for American literature since World War II and discusses strategies for reading such representative authors as Roth, Coover, Oates, and Morrison. Spring, odd-numbered years.
- ENG 331:** *STUDIES IN THE AFRICAN–AMERICAN NOVEL* **3 s.h.**
Studies in depth the development of the African-American novel from its origins in the slave narratives to the present. How do African-American novels fit into the larger tradition of African-American literature? What modes of thematic and narrative discourse mark the particular characteristics of the African-American novel? Includes Douglass, Chesnut, McKay, Hurston, Wright, Ellison, Reed, Walker, and Morrison.
- ENG 332:** *19TH-CENTURY BRITISH NOVEL* **3 s.h.**
Explores the English novel from Austen to Hardy. Nine or ten novels are studied with selections from Austen, Scott, Eliot, Dickens, Thackeray, Disraeli, Meredith, Trollope, the Brontes, Gaskell. No prerequisite; however, one semester of English literature survey (ENG 221 or 222) is recommended. Fall, even-numbered years.
- ENG 334:** *MODERN BRITISH LITERATURE* **3 s.h.**
Examines the relationship between social and cultural change and the creation of literature and theory in British literature from 1900 to the close of World War II. Provides an opportunity to compare genres and to study key literary movements. No prerequisite. One semester of ENG 221 or 222 is recommended. Spring, even-numbered years.
- ENG 335:** *STUDIES IN CONTEMPORARY BRITISH LITERATURE* **3 s.h.**
Examines British literature produced from the end of World War II to the present. Provides an opportunity to compare genres and to study significant literary and cultural movements. No prerequisite. One semester of ENG 221 or 222 is recommended. Spring, odd-numbered years.
- ENG 339:** *SHORT STORIES* **3 s.h.**
Traces the evolution of the short story from the 19th century to the present. Elements such as plot, character, theme, style, and point of view are studied. Readings are drawn from a variety of writers representing a diversity of cultures: Poe, deMaupassant, Chopin, Gilman, Faulkner, Ellison, Kafka, Hurston, Fuentes, Lessing, Silko, Walker, and LeGuin. Spring, annually.
- ENG 341:** *20TH-CENTURY POETRY* **3 s.h.**
Provides explication and discussion of works by such writers as Yeats, Frost, Eliot, Plath, L. Hughes, Auden, Brooks, and Rich. Fall, odd-numbered years.
- ENG 342:** *ENGLISH DRAMA TO 1642* **3 s.h.**
Presents an overview of English drama in its first two phases, Medieval and Renaissance (non-Shakespearean). Includes literary, theatrical, and cultural studies. No prerequisite. Fall, odd-numbered years.

- ENG 343:** *ENGLISH DRAMA FROM 1660 TO 1850* **3 s.h.**
Presents some of the major forms of drama in this extremely varied 200-year period, with possible focuses on heroic tragedy, Restoration comedy, sentimental comedy, Victorian melodrama, and the precursors of modern English drama. No prerequisite. Fall, even-numbered years.
- ENG 344:** *MODERN DRAMA TO 1950* **3 s.h.**
Surveys influential dramatic literature of the Continental, British, and American theater from 1850 to 1950 through lectures, discussion, and experiences related to the modern stage. No prerequisite. Spring, even-numbered years.
- ENG 345:** *CONTEMPORARY DRAMA* **3 s.h.**
Explores the diversity and vitality of British, American, and World theater since 1950 through selected texts and theatrical experiences. No prerequisite. Spring, odd-numbered years.
- ENG 350:** *MOVIE GENRES* **3 s.h.**
Explores genre as sets of narrative conventions that have vitalized American movies. Demonstrates genre to be a socializing force as well as a mirror of social change. Considers representations of race, gender, and class in various genres. Spring, odd-numbered years.
- ENG/ANTH 352:** *TOPICS IN FOLKLORE* **3 s.h.**
Provides intensive study of one or more aspects of folklore. Focuses on one or more folk groups, a particular folk genre, folklore and popular culture, or folklore and literature. Provides students with fieldwork experience—collection, transcription, classification—and methods of analysis of oral traditions. No prerequisite. Spring, annually.
- ENG 353/ANTH 364:** *AMERICAN VOICES* **3 s.h.**
Provides an introduction to American dialectology and sociolinguistics. Emphasizes the great diversity and vitality of American English. Covers the causes and mechanisms of linguistic change, the role of language differences in society, and the relevance of dialectology to language teaching. Pays special attention to the regional speech patterns of Pennsylvania. No prerequisite. Spring, odd-numbered years.
- ENG 354:** *STUDIES IN TOPICS IN WORLD LITERATURE* **3 s.h.**
Provides an in-depth study of world literature through the examination of the development of a particular literary genre, movement, or theme that crosses national or cultural boundaries; or a significant national or cross-cultural English language tradition that falls outside the conventional canons of British and American literature. Fall, odd-numbered years.
- ENG 355:** *STUDIES IN TOPICS IN LITERARY THEORY* **3 s.h.**
Provides a historical study of literary criticism and aesthetic theory with emphasis upon modern trends. Spring, even-numbered years.
- ENG 356:** *RHETORICAL THEORY FOR WRITERS* **3 s.h.**
Explores such questions as: why do we communicate in writing, how does writing help us learn, how does writing facilitate, change or affect the nature of communication? Students examine in detail the works of figures such as Plato, Cicero, Nietzsche, Bakhtin, Derrida, and Kristeva, and study how rhetorical theory is used in everyday communication. Prerequisite: Exemption from or successful completion of the general education writing requirement.
- ENG 361:** *ENGLISH STUDY OFF-CAMPUS* **3 s.h.**
Provides students with an opportunity to travel to significant literary and historical sites while reading and discussing related texts. Students would travel during university breaks and would meet with the instructor for orientation prior to travel. After travel is completed, students will turn in assignments according to a schedule developed by instructor. No prerequisite. Spring, even-numbered years on demand. Can be repeated with different topic.
- ENG 363:** *LITERATURE AND MEDICINE* **3 s.h.**
Explores the broad range of literature (short fiction, novel, poetry, memoir, drama/film) that expresses the human experiences of illness, disability, healing, and dying from the perspectives of patients, caregivers, and health care practitioners (physicians, nurses, allied health professionals). The course will emphasize social and historical contexts and represent the diversity of these experiences, especially in terms of race/ethnicity, gender, and class, with further consideration of the influences of scientific and technological advances over time.
- ENG 364:** *LITERATURE AND AGING* **3 s.h.**
Explores the broad range of literature (short fiction, novel, poetry, memoir, drama/film) that expresses the human experiences of aging and depicts images of aging and the aged, with a focus on aging in relationship to identity, love, family, and community and on the concerns of independence/dependence, loneliness/alienation, friendship, faith, creativity and renewal, ageism, death, and bereavement from literary and social scientific perspectives.
- ENG 365:** *IMAGES OF WOMEN IN LITERATURE* **3 s.h.**
Examines images of women in myth, literature, and the culture at large and applies contemporary feminist critical approaches to the study of these images. Spring, annually.
- ENG/ANTH 380:** *LANGUAGE AND CULTURE* **3 s.h.**
An introduction to linguistic anthropology. Focuses on the main areas of intersection between language and culture. Topics may include: animal communication systems; primate language studies; the evolution of language; linguistic diversity; linguistic relativity (a.k.a. the Sapir-Whorf Hypothesis); language endangerment and revival; nonverbal communication; linguistic field methods; ethnopoetics; sociolinguistics; language and identity; language and gender; and the ethnography of speaking. From an examination of such topics, students will learn to see how people use language to create and maintain their cultures, and to recognize the ways in which language itself influences human thought and behavior.
- ENG 381:** *DOCUMENTARY WRITING* **3 s.h.**
Examines the historical, social, literary, and rhetorical significance of the genre of documentary writing with practice of the genre itself. Emphasizes documentary writing as a means of witness, inquiry, and persuasion. Students select a field site and use ethnographic and secondary research to produce a portfolio of documentary essays. Historical and current examples of documentary writing will provide models for students throughout the course. Prerequisite: ENG 111 and at least one other upper division writing course.
- ENG 401:** *CHAUCER* **3 s.h.**
Studies in Middle English of Chaucer's early poems, *Troilus and Criseyde*, and the *Canterbury Tales*. Spring, even-numbered years.
- ENG 404:** *ADVANCED CREATIVE WRITING* **3 s.h.**
Advanced course for experienced creative writing students. Provides independent and extensive explorations into a creative writing project. Helps prepare students for future writing careers and/or graduate school in creative and professional writing.

- ENG 406:** *STUDIES IN MEDIEVAL LITERATURE* **3 s.h.**
Examines medieval British literature (ca 800-1550) in its historical and cultural contexts. Content will vary. May focus on a genre epic, romance, saga, drama, poetry, saints' lives, and allegorical pilgrimage), major writer (Gawain-poet, Malory), or theme (such as love and violence, the nature of evil, the monstrous.) May be repeated twice for credit provided that content (topic and texts) change.
- ENG 410:** *STUDIES IN ARTHURIAN LITERATURE AND FILM* **3 s.h.**
Examines texts and issues in the Arthurian tradition, from early medieval to modern. Texts will vary, but may include Chretien de Troyes' *Arthurian Romances*, Sir Thomas Malory's *Morte D'Arthur*, Tennyson's *Idylls of the King*, T.H. White's *Once and Future King*, Zimmer-Bradley's *Mists of Avalon* and the films *Excalibur*, *Lancelot*, and *King Arthur*. Texts may be approached through the lens of genre, historical development, cultural/political context, depiction and development of characters.
- ENG 412:** *SHAKESPEARE: COMEDIES AND HISTORIES* **3 s.h.**
Provides study and discussion of problems of style, characterization, and motivation in Shakespeare's maturing and experimental comedies and his history plays. Also examines how the plays reflect and challenge the cultural attitudes of Shakespeare's time. Fall, annually.
- ENG 413:** *SHAKESPEARE: TRAGEDIES AND ROMANCES* **3 s.h.**
Provides study and discussion of problems of style, characterization, and motivation in Shakespeare's tragedies and romances. Also examines the production practices of Shakespeare's time and contemporary production approaches. Spring, annually.
- ENG 454:** *THE NOVEL ACROSS CULTURES* **3 s.h.**
Examines the genre of the novel from an international perspective, with readings from several national or cultural traditions. Includes an overview of theoretical approaches to the novel that focus on its adaptability across national and cultural borders. Spring, even-numbered years.
- ENG 455:** *STUDIES IN DRAMA AND DRAMATIC THEORY* **3 s.h.**
Provides an intensive exploration of drama, concentrating especially on contemporary developments in both drama itself and in the theoretical study of drama, including recent critical developments in ethnic, feminist, and performance approaches to dramatic texts. Focus of course varies. No prerequisite.
- ENG/ANTH 457:** *INTRODUCTION TO LINGUISTICS* **3 s.h.**
Presents key concepts and basic analytical procedures common to many contemporary linguistic theories. Covers phonetics and phonology, morphology, and syntax. Analyzes the integration of these sub-systems in the overall design of a generative grammar. Prerequisite: ENG/ANTH 262. Fall, annually.
- ENG 458:** *HISTORY OF THE ENGLISH LANGUAGE* **3 s.h.**
Studies the history of the language, including its origins and changes in structure, usage, pronunciation, spelling, vocabulary, and meaning. Intensive readings in Old and Middle English. Spring, even-numbered years.
- ENG 459:** *LANGUAGE ACROSS CULTURES: MATERIALS AND ASSESSMENT* **3 s.h.**
Introduces current research in first and second language acquisition with emphasis on the preparation of classroom teachers and other professionals to work with children/adults coming from a background where languages other than English are spoken. Prerequisite: ENG 262 recommended but not required. Spring, odd-numbered years.
- ENG 460:** *INDEPENDENT STUDY* **1-6 s.h.**
Permits students to explore an area of special interest in the English language or its literature. Students must develop a plan of study, secure the approval of a member of the English faculty willing to supervise the project, and submit the plan to the department chair. Maximum credits—six. Prerequisite: Junior or senior standing.
- ENG 462:** *METHODOLOGY IN TEACHING ENGLISH TO NON-NATIVE SPEAKERS* **1-6 s.h.**
This course provides an overview of the current trends in Teaching English as a Second Language Methodology. It will explore techniques that may be used to teach students who are part of the regular classroom but who need to develop skills in language to be able to succeed. Techniques involving speaking, reading, writing and listening activities will be discussed along with interactive exercises utilizing the culturally diverse language styles found in a regular classroom. Students will be trained to utilize the comprehensible input of native-speaking members of the class as well as to improve upon their own interaction style. Major approaches and methods in language teaching such as grammar translation, audiolingualism, communicative language teaching, and the natural approach will be discussed, along with syllabus design, teaching activities, teacher and learner roles, and materials.
- ENG 463:** *SECOND LANGUAGE ACQUISITION* **1-6 s.h.**
This course provides an overview of the current state of the art in Second Language Acquisition studies and explores the linguistic, psycholinguistic, and sociolinguistic factors in learning a second language.
- ENG 470:** *LITERATURE FOR YOUNG ADULTS* **3 s.h.**
Introduces future teachers to classical and contemporary literature for young adults. Includes works from various genres written by American, British, and American minority authors. Also includes some world literature and film. In addition to developing first-hand knowledge of important works in the field, students will also become familiar with its history and with the controversies that have shaped it. Fall, annually.
- ENG 480:** *WRITING FOR THE PROFESSIONS* **3 s.h.**
A workshop-style course in applied writing—specifically, writing for the professions, which may include the arts, business, education, medicine, law, science, and/or academic research writing. Students will learn how to produce documents for potential publication and/or presentation. Focus varies but may include composing professional documents in a virtual environment. Prerequisites: One of the following: ENG 207, a 300-level writing course, or consent of the instructor.
- ENG 482:** *COMPOSITION: THEORY AND PRACTICE* **3 s.h.**
Provides a systematic study of theory and practice in the teaching of composition, conducted through workshop methods. Requires extensive writing and a major written project. Prerequisites: secondary education majors in English must have completed ENG 111, 200, or 301 and have taken or be taking their methods course; others by permission of the instructor. Fall, annually.
- ENG 499:** *SENIOR SEMINAR* **3 s.h.**
Explores in a seminar setting a theme, an idea, or an issue beyond the scope of individual courses. Studies primary literature and relevant criticism. A major paper is required of all participants; other course requirements will be established by the instructor prior to the semester of offering. Required of senior liberal arts English majors. Fall, annually.

French

FRENCH, B.A. See Modern Languages and Cultures.

Geography

Department of Anthropology, Geography, and

Earth Science (AGES); Anthony Vega, Ph.D., Chair

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People have always sought to understand the world they inhabit. Geography begins with this curiosity about both the familiar and the remote, but it does not stop with a simple list of what is where. It seeks to know why things are where they are. Geography is an integrative discipline concerned with the nature and significance of the patterns, places, and landscapes that make up the earth's surface. It embraces both the natural and human and is particularly concerned with how humans interact with the earth's natural systems. The last 15 years have seen a resurgence of geographical study at all levels. Economic globalization has made geographical knowledge increasingly crucial. In addition, the digital revolution has transformed geography's traditional mapping tools into geographic information systems (GIS) that can combine and

analyze satellite and other kinds of data. Today there is a large and expanding job market for graduates with GIS skills. Geographers' multidimensional training allows them to work in the environmental field, as well as in business, planning, and education. There is also a demand for students in geography graduate programs where most students are fully supported.

As part of the AGES Department, the geography program at Clarion is diverse and cross-disciplinary. The faculty is engaged in local and international research. Students often work as interns and collaborate on faculty projects. The department maintains a state-of-the-art GIS laboratory as well as a map library.

GEOGRAPHY, MINOR 18 credits

There are no required courses, however students will have to complete nine credits at the 300 level and at least three credits in each of the following areas: human geography, physical geography, and techniques in geography.

GEOGRAPHY INFORMATION SYSTEMS, MINOR 18 credits

Students choose either GEOG/ES 125 or GEOG/ES 345; then three from this list: GEOG/ES 400, 425, 470 and 490, as well as two additional courses from mathematics (MATH 100-499) and/or CIS (except for CIS 110 and 120).

GEOGRAPHY SUSTAINABLE PLANNING, MINOR 19 credits

Required: ENVR/PH 261, ENVR 490; 1 hour credit in BIOL 499, CHEM 465 or 466, ECON 491, PH 498 or 499, HON 450; two courses in BIOL 202, 211, 405, ES 260, 301, 320, GEOG 301, 320; two courses in BSAD 340, 341, ECON 202, ENVR 275, GEOG 115, 310, PHIL 358, CMST 333.

Geography Courses

NOTE: Geography (GEOG) courses carry social science credit only.

GEOG 100: INTRODUCTION TO WORLD GEOGRAPHY **3 s.h.**

Provides an overview of important human and physical characteristics of the world's cultural realms. Examines issues of economic and social development, and religions and cultures found around the world in a regional or systematic context. Explores contemporary environmental, political, and ethnic/racial problems.

GEOG 115: CONSERVATION OF NATURAL RESOURCES **3 s.h.**

Integrates the social and natural sciences by examining the concepts, methodologies and history of the Conservation of Natural Resources. Includes soil, water, land, forest, wildlife, energy, clean air, and historic resources. Explores the many controversial issues surrounding the management of public lands and regulation of private land. Examines the rationale and logic of federal and state environmental laws. Every fall or spring. (Values Flag)

GEOG 125: MAP INTERPRETATION **3 s.h.**

Broad study of maps, charts, and atlases. Develops awareness of the variety of maps available and promotes skill in their use. Emphasizes understanding map characteristics and properties needed for effective map usage, projections upon which maps are commonly drawn, co-ordinates and grid systems, map scales, aerial representations of relief, and statistical data. Prerequisite: Consent of instructor. Offered annually.

GEOG 244: THE COUNTRY AND THE CITY: PLANNING THE HUMAN ENVIRONMENT **3 s.h.**

Analyzes the geographic structure of rural and urban life, emphasizing the environmental, economic, and transport connections between cities and rural areas. Focuses both on the fundamental question of planning philosophy (What constitutes a suitable human environment?) and on the methods by which planning goals might be reached. Offered occasionally.

GEOG 250: GEOGRAPHY OF EUROPE **3 s.h.**

Study of European landscapes and regions. Students develop an understanding of the geographic basis of Europe's major economic and social problems. Emphasizes Western Europe. The Soviet Union is not included in this course. Recommended for majors in history and social science. Every other year.

GEOG 252: GEOGRAPHY OF LATIN AMERICA **3 s.h.**

Focuses on the complex social, economic, and political problems confronting this diverse region. Gives special attention to relationships between Latin America, the United States, and other countries. Includes a synthesis of the physical and cultural landscapes of the region. Emphasizes understanding developmental processes in Latin American nations and the geographical importance of the region today and in the 21st century. No prerequisites. Offered occasionally.

- GEOG 256: GEOGRAPHY OF THE CARIBBEAN 3 s.h.**
 Study of the Caribbean, with a special tour on the geography and the cultural and socio-economic aspects of the Caribbean. Emphasizes socio-economic history of slavery and the plantation economy, including issues of race relations and their spatial dimensions. Traces the economic transition away from the plantation economy, the rise of an active black leadership, urbanization and urban planning in the region, attempts at economic and political regional integration, economic development strategies of small Caribbean islands, and the impact of tourism as the new “mono” culture of the region. Offered occasionally.
- GEOG 257: GEOGRAPHY OF THE UNITED STATES AND CANADA 3 s.h.**
 Analyzes geographic problems, natural and cultural, of the United States and Canada; the synthesis of physical, biotic, economic, and social patterns and problems of geographic regions of North America; the interrelationship of North American political structures and their ties with the rest of the world. Each semester.
- GEOG 258: GEOGRAPHY OF PENNSYLVANIA 3 s.h.**
 Regional analysis of Pennsylvania emphasizing man’s cultural and economic response to environmental factors. Gives special attention to the resources of the state, analyzing their extent, their use, the need for well-directed conservation, and the regional planning program of the commonwealth. Offered occasionally.
- GEOG 260: ECONOMIC GEOGRAPHY 3 s.h.**
 Explores the production, exchange, and use of the basic commodities of the world; the relationship between the physical factors and economic conditions and the patterns of major economic activities, world trade, and trade routes; economic landscapes; and problems of economic development. Recommended for majors in economics, history, and political science. Every other year.
- GEOG 265: TRADE AND TRANSPORTATION 3 s.h.**
 Geographic inquiry into worldwide forces of supply and demand and related transport modes and media. Examines the central producer and service functions of population centers; world trade patterns of commodities, economic blocs, stages of economic development; and problems related to the economic interdependence of regions and nations. Based on concepts learned in GEOG 260. Every other year.
- GEOG 300: SPECIAL TOPICS**
 Topics of special interest in various areas of physical, human, or regional geography. Professor selects format most suitable to the study. Enrollment by consent of the instructor.
- GEOG 310: GEOGRAPHY, SUSTAINABLE DEVELOPMENT, AND THE DEVELOPING WORLD 3 s.h.**
 Examines the commonalities developing countries have faced and continue to face in their push toward development, particularly as they relate to the spatial aspects affecting the conditions of the development process. Analyzes theories of growth and social and economic development, as well as the historical and contemporary relationship between the “developed” and the developing world. Discusses issues such as population growth and human settlement patterns, the rural/urban dichotomy, industrialization and urbanization, regional trading blocks, transportation and development, and the socio-economic development planning. Examines the impact of cultural elements such as religion and the role of women in development. Writing-intensive course. No prerequisite. On demand.
- GEOG 315: HUMAN GEOGRAPHY: RACE, CLASS, AND GENDER, AND THEIR SPATIAL DIMENSIONS 3 s.h.**
 Focuses on methods and theories geographers have used to explore how social relations of race, class, and gender have been structured, influenced, and expressed spatially. Exposes students to social/spatial construction theories (the social construction of race and gender, the social production of space, and the role of space in the construction of gender and race), and “postmodern” economic restructuring and its impact on the location and (race, class, and gender component of the) employment structure of “flexible” industries. Explores contemporary theories on the role of race/gender and class intersection in the reproduction process, and the colonial and postcolonial geographies of gender and race. Writing intensive course. Prerequisite: None. Offered fall, odd numbered years.
- GEOG/ES 345: COMPUTER CARTOGRAPHY WITH LABORATORY 4 s.h.**
 Systematic study of the newest dimension of cartography in use today. Designing and constructing computer maps is an integral part of the course. Students create computer maps with a number of programs, including Atlas Graphics, Atlas Draw, Microam, Map Info. PC Globe, PS USA, Systate, etc. Introduces students to the use of the digitizer. Every other spring.
- GEOG/ES 385: CLIMATOLOGY 3 s.h.**
 Examines the major components of climate and climate change. Analyzes physical aspects of the atmosphere as a series of long-term weather phenomena. Studies regional characteristics of climate on the basis of worldwide weather patterns. Emphasizes how applied aspects of climate demonstrates the interrelationships and importance of both physical and regional climatology to humankind. Also examines the causes of long-term climate change and variability. Acceptable for social science or natural science credits. Prerequisite: ES 280.
- GEOG/ES 400: INTRODUCTION TO REMOTE SENSING WITH LABORATORY 3 s.h.**
 Study and assessment of the physical and cultural with Laboratory] features of the earth using satellite images and aerial photographs. Uses black and white photos, color infrared photos, and digital satellite images for planimetric map construction, agricultural and vegetation studies, landform identification, land use assessment, and forestry. Laboratory activities include analysis of imagery in different zones of the electromagnetic spectrum, geometric correction of satellite images, and computer-assisted land cover classification. Each Fall Semester.
- GEOG/ES 404: SOILS WITH LABORATORY 4 s.h.**
 Comprehensively examines the classification, formation, and interpretation of soils. Explores the processes of soil classification (both the zonal classification and the soil taxonomy classification). Includes soil formation (parent material, climate, slope, time, and organic activity) and the interpretation of pedogenic sequences (as it relates to deposition, diagenesis, and climate change). Laboratory (one credit, two hours) complements lecture. Emphasizes field interpretation, geochemistry, and textual classification of soils. Prerequisites: ES 150 and 255 or permission of the instructor.

GEOG/ES 425: *ADVANCED REMOTE SENSING WITH LABORATORY* 3 s.h.

Builds on the content of Introduction to Air Photo Interpretation and Remote Sensing. Uses Earth imaging satellites, such as Landsat, Spot, and Ikonos, and introduces new instruments, including Radarsat, Space Shuttle, and Space Station Earth imaging instruments. Examines various digital data sets including digital elevation models (DEMs), digital orthophotos and digital topographic maps. Students will work together on a drainage basin study to assess the sources of acid pollution using computer-assisted land cover classification, manual photo interpretation, and field reconnaissance to identify strip mine areas and acid discharging oil/gas wells. Prerequisite: GEOG/ES 400. Every Spring.

GEOG/ES 450: *FIELD GEOGRAPHY WITH LABORATORY* 3 s.h.

Systematic study of techniques essential to geographic field investigation. Emphasizes practical, first-hand experiences in the field where students learn techniques and procedures of rural and urban land usage by surveying and field research. Prerequisite: Consent of instructor. Summer on demand.

GEOG/ES 470: *INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS* 5 s.h.

Addresses basic concepts and principles of geographic information systems, data models, data structures, applications, and technical issues. Lab focuses on how these basic principles are implemented in a GIS. Lab includes an entire sequence of building spatial database: data capturing, editing, adding attributes, building topography, registering layers to real-world coordinates, making map compositions, data conversion, and basic analysis. Fall, annually.

GEOG/ES 490: *ADVANCED GEOGRAPHIC INFORMATION SYSTEMS WITH LABORATORY* 3 s.h.

Provides students with the ability to apply GIS for spatial problem solving in applied settings. Lecture- and application/project-based course. Lecture covers spatial modeling and analysis, based on a raster data structure. Laboratory sessions introduce students to three-dimensional surface modeling, cost-distance analysis, runoff modeling, and diffusion analysis. Prerequisite: GEOG/ES 470. Each Spring Semester.

GEOG 499: *SEMINAR METHODS IN GEOGRAPHICAL RESEARCH* 3 s.h.

Presents the opportunity for students with considerable interest and background in geography to utilize the various methods of analysis of the discipline to examine a concrete issue or research problem. Emphasizes analysis, synthesis, and communication. Students produce a written report and give an oral presentation of their project. Prerequisites: Junior or senior status in geography or permission of instructor. Every other spring.

Geology/Earth Science**Anthropology, Geography, and Earth Science**

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389 Science and Technology Center

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Professors: Ryberg, Vega, Vento, Zamzow

Assistant Professor: Shulik

Have you ever wondered how a mountain forms? Or where the water you drink comes from? Or where we are going to safely put the huge quantities of waste materials a modern society produces? Or why “fossil fuels” are called that? Or been captivated by dinosaurs or gemstones? Have you wondered about earthquakes, or landslides, or floods? If so, you may want to investigate geology—the science that studies all of these and much more. As an intellectual field of study, geology attempts to understand how all the features of the earth are formed and in what historical sequence. As an applied field of study, geologists take the basic understanding of earth processes and attempt to predict where oil, gas, coal, and other earth resources are located and how best to extract them. They may also help to locate and predict geologic hazards such as earthquakes, volcanic eruptions, and landslides. Others may apply the knowledge of geologic processes to predicting human occupation sites for archaeologists, and then help interpret the environment when the site was occupied. Others, sometimes more correctly called planetologists, use knowledge of planet earth to understand other planets in the solar system. A few even assist in solving crimes. Clearly, geology is a varied field

of study with hundreds of sub-specialties within it.

In the AGES Department, students can get a strong foundation in the basics of geology with the geology degree, a beginning that would prepare them for graduate studies and employment in a number of commercial firms and governmental agencies. Those with a specific interest in environmental applications may wish to enroll in the environmental geoscience program. This is specifically designed to prepare students to work in the rapidly expanding environmental consulting field. Individuals who would like to teach in the public schools will want to investigate the Secondary Education–Earth and Space Science program. Those who would like to combine an interest in the earth with another field of study may want to enroll in a dual major or a minor in earth science. A distinctive feature of the geology program at Clarion is the opportunity to include GIS (Geographic Information Systems) classes, which add a powerful mapping and spatial analysis tool to the skills of our graduates.

GEOLOGY, B.S.54-66 credits

Required: ES 150, 250, 255, 350, 355, 360, 370, 390; 15 additional hours must be elected from the following courses, GEOG/ES 345, 385, 400, 425, 450, 470, 490; ES 260, 270, 280, 300, 330, 375, 404; GEOG 125; BIOL 111, 155/165, 156/166, 202; CHEM 351 or Field Camp.* In addition to these 46 credits, the following courses are required: CHEM 153/163, 154/164; PH 251, 252; MATH 260.

*In cooperation with another college or university.

SECONDARY EDUCATION, B.S.Ed.

Certification for grades K-12, Earth Science (see under Secondary Education Earth Science), page 155.

ENVIRONMENTAL GEOSCIENCE, B.S.54-66 credits
Required: ES 150, 255, 260, 280, 330, 455, 470, BIOL
 155/165, 156/166, 202; CHEM 153/163, 154/164, and MATH 221;
 and 18 credits in one (or more) of the following tracks:
Hydrogeology track: ES 250, 345, 350, 360, 370, 390, 404, GEOG/
 ES 490; CHEM 351/361; MATH 171, 260; BSAD 340, PH 251, 252.

Surficial Geology track: ES 250, 345, 350, 355, 360, 370, 375, 390,
 400, 404, 425; GEOG/ES 490; BSAD 340; PH 251, 252.

Atmospheric track: ES 270, 380, 385, GEOG/ES 490; PH 251, 252;
 BSAD 340.

The AGES Department also offers a program in secondary
 education; page 155.

Earth Science Courses

NOTE: Earth Science (ES) courses carry natural science credits only.

- ES 111: BASIC EARTH SCIENCE** **3 s.h.**
 Surveys the earth sciences, including Earth-space relations. Includes Earth motions, development of landforms, weather and climate, soils and related vegetation, water as a resource, and oceans. Emphasizes the lithosphere (mountain building and erosion) and the atmosphere. Each semester.
- ES 150: PHYSICAL GEOLOGY WITH LABORATORY** **4 s.h.**
 Study of the earth, including minerals and rocks, and the processes, both constructional and destructional, which have shaped it since it was formed. Constructional processes include volcanism, mountain building, and sedimentation. Destructional processes include the erosional activity of streams, glaciers, ground water, waves, and wind. Acquaints students with the methods and work of geologists and with some of the research at the frontiers of geology. Two hours lecture, two hours laboratory. No prerequisites. Each semester.
- ES/PH 200: SOLAR SYSTEM ASTRONOMY** **3 s.h.**
 Examines the motions of Earth, moon, and the planets and their effects on the appearance of the sky; the nature of the sun and the planets; the instruments of the astronomer; and the role the history of astronomy played in the development of our understanding of the sky. Includes constellation identification through the use of the planetarium. Each semester.
- ES/PH 201: STELLAR ASTRONOMY** **3 s.h.**
 Explores human understanding of the nature, formation, and evolution of those celestial objects that lie beyond the solar system. Includes stellar properties and spectra, stellar evolution, special stars and star systems, the milky way and other galaxies, cosmology, and cosmogony. Uses the planetarium for constellation study and the development of coordinate systems. Prerequisite: ES 200. Spring, annually.
- ES 222: DINOSAURS: MYTH AND REALITY** **3 s.h.**
 General education course introduces students to the broader issues of scientific endeavor, using dinosaurs as the specific topic of investigation. Addresses the nature of science, the interaction of scientific ideas across disciplinary boundaries. Requires library research outside of class. Spring, annually.
- ES 250: HISTORICAL GEOLOGY WITH LABORATORY** **4 s.h.**
 Deals with the changes the Earth has experienced through time. Emphasizes the geologic evidence for plate tectonic movements of ocean basins and continents, uplift and erosion of mountains, and deposition of strata in various sedimentary basins. Examines in detail the evolutionary changes and mass extinction of life-forms, as preserved in the fossil record. Prerequisite: ES 150 (may be taken concurrently). Offered Spring Semester annually.
- ES 255: GEOMORPHOLOGY WITH LABORATORY** **4 s.h.**
 Study of the physical forces that sculpt and modify the landforms of the earth, including chiefly weathering, streams, glaciation, and shore processes. Includes some preliminary work on topographic and geologic maps and rocks. Prerequisite: ES 150. Offered annually.
- ES 260: ENVIRONMENTAL GEOLOGY** **3 s.h.**
 Examines the uses of geology in the solution of human problems with the physical environment. Includes hazardous geologic environments, mineral and energy resources, water supply, waste disposal, and the uses of geology in urban and regional planning. Draws many examples from western Pennsylvania. Prerequisite: ES 150 or 111. Offered annually.
- ES 270: OCEANOGRAPHY** **3 s.h.**
 A study of the physical properties, marine biology, chemistry, and geology of the oceans, and to a minor extent, the role of the sea in the history, culture, and technical developments of humankind. Once annually.
- ES 280: METEOROLOGY** **3 s.h.**
 Introduces the earth's atmosphere. Emphasizes the laws and underlying principles of atmospheric motion and change, earth-sun relationships, atmospheric composition and structure, the general circulation of the atmosphere, winds and wind systems, the precipitation process, and the genesis and life cycle of storms.
- ES 300: SPECIAL TOPICS**
 Topics of special interest in various areas of earth science. The professor selects and designs the format most suitable to the study. Enrollment by consent of the instructor.
- ES 310: INTRODUCTION TO GEOPHYSICS** **3 s.h.**
 Explores theoretical and exploration geophysics, including physical characteristics of the earth, such as its shape, rotation, and procession; seismology and the interior conditions of the earth; geomagnetism and paleomagnetism; radioactivity and dating techniques; gravity and tides; internal heat; well logging; electrical techniques such as resistivity; and plate tectonics and its mechanisms. Prerequisites: ES 150, 250, PH 251, 252; or permission of instructor. Every other year.
- ES 330: HYDROGEOLOGY WITH LABORATORY** **4 s.h.**
 Hydrogeology deals with both surface water and groundwater in the hydrologic cycle using quantitative methods. Examines aquifer systems, water wells, water quality, water resource management, groundwater flow, and pollutant transport in detail during labs, field trips, and site tours. Prerequisite: ES 150. Offered Fall Semester annually.

- ES/GEOG 345: COMPUTER CARTOGRAPHY WITH LABORATORY** **4 s.h.**
 Systematic study of the newest dimension of cartography in use today. Designing and constructing computer maps is an integral part of the course. Students create computer maps with a number of programs, including Atlas Graphics, Atlas Draw, Microam, Map Info, PC Globe, PS USA, Systate, etc. Introduces the use of the digitizer. Every other spring.
- ES 350: STRUCTURAL GEOLOGY WITH LABORATORY** **4 s.h.**
 Investigates the geometry, origin, and recognition of the main structural features of the rocks of the earth's crust, including folds, faults, joints, unconformities, larger igneous bodies, cleavage, lineation, etc. Explores interpreting structure from geologic maps, structural petrology, and geophysical methods used in structural geology. Prerequisite: ES 150. Every third semester.
- ES 355: INVERTEBRATE PALEONTOLOGY** **3 s.h.**
 Explores the outstanding invertebrate animals preserved in the fossil record. Examines the nature of the fossil record itself, evolution as shown by fossils, and classification problems in paleontology. Prerequisite: ES 250. Every other year.
- ES 360: MINERALOGY (MINERALS) WITH LABORATORY** **4 s.h.**
 Examines the identification, uses, physical and chemical properties, occurrence, origin, and crystallography of the common minerals. Prerequisite: At least high school chemistry. Every third semester.
- ES 370: PETROLOGY (ROCKS) WITH LABORATORY** **4 s.h.**
 The identification, occurrence and origin, classification, physical and chemical properties, and uses of the common rocks. Includes a brief study of the important rock-forming minerals. Prerequisite: ES 150. Every third semester.
- ES 375: MODERN DEPOSITIONAL SYSTEMS** **3 s.h.**
 Overview of the major sedimentary depositional systems, with primary emphasis upon modern environments and processes. Addresses the dynamic processes at work in the major environments and upon the sedimentary features that result, which, in turn, may permit recognition of each environment in the geological record. Prerequisites: ES 150, 250, 360, and 370 are recommended.
- ES 380: SEVERE WEATHER** **3 s.h.**
 Investigates various types of severe and unusual weather. The course seeks enhanced understanding of the causes, movement, life cycles, and dissipation of severe weather events such as: mid-latitude cyclones, blizzards, thunderstorms, tornadoes, hurricanes, lightning, hail, floods, droughts, freezing rain, microbursts, local and regional air pollution, greenhouse warming, and ozone depletion. Acceptable for social science or natural science credits. Prerequisite: ES 280.
- ES/GEOG 385: CLIMATOLOGY** **3 s.h.**
 Examines the major components of climate and climate change. Analyzes physical aspects of the atmosphere as a series of long-term weather phenomena. Studies regional characteristics of climate on the basis of worldwide weather patterns. Emphasizes how applied aspects of climate demonstrate the interrelationships and importance of both physical and regional climatology to humankind Also examines the causes of long-term climate change and variability. Acceptable for social science or natural science credits. Prerequisite: ES 280.
- ES 390: STRATIGRAPHY AND SEDIMENTARY PETROLOGY** **4 s.h.**
 Systematic study of clastic and carbonate stratigraphic sequences, emphasizing interpretation of lithofacies, tectono-sedimentary settings, and sequence stratigraphy. Laboratories include study of petrologic/diagenetic characteristics of sedimentary strata, recent advances in seismic stratigraphy, and basin analysis. Prerequisite: ES 150. (ES 250, ES 360, and ES 370 are recommended.) Every third semester.
- ES/GEOG 400: INTRODUCTION TO REMOTE SENSING WITH LABORATORY** **3 s.h.**
 Explores aerial photographs for geographic investigation of physical and cultural features of the landscape; the application of remote sensing to topographic and planimetric map construction, agricultural and land use identification, landform study, and forestry. Each Fall Semester.
- ES/GEOG 404: SOILS WITH LABORATORY** **4 s.h.**
 Comprehensively examines the classification, formation, and interpretation of soils. Students examine the processes of soil classification (both the zonal classification and the soil taxonomy classification), soil formation (parent material, climate, slope, time and organic activity), and the interpretation of pedogenic sequences (as it relates to deposition, diagenesis, and climate change). Laboratory (one credit, two hours) complements lecture portion of the course. Emphasizes the field interpretation of soils as well as the geochemistry and textural classification of soils. Prerequisites: ES 150 and 255 or permission of the instructor.
- ES/GEOG 425: ADVANCED REMOTE SENSING WITH LABORATORY** **3 s.h.**
 Examines satellite-based earth imaging instruments, data sources, and products, and their applications to land use management, geologic assessments, agriculture, forestry, soil resources, archeology, meteorology, and oceanography. Utilizes visual and digital data. Prerequisite: GEOG 400 (can be waived by permission of instructor). Every Spring.
- ES/GEOG 450: FIELD GEOGRAPHY WITH LABORATORY** **3 s.h.**
 Explores techniques essential to geographic field investigation. Emphasizes practical, first-hand experiences in the field where students learn the techniques and procedures of rural and urban land usage by surveying and field research. Prerequisite: Consent of instructor. Summer, on demand.
- ES 455: FIELD METHODS IN ENVIRONMENTAL GEOSCIENCE** **4 s.h.**
 Field-based course provides upper-level undergraduates hands-on experience in hydrogeology, meteorology, bedrock, and surficial geology projects. Group projects include analysis of a small watershed, geologic mapping, and measurement of a stratigraphic section, soils and terrace mapping, and surveying a strip mine remediation site. Emphasizes proper use of traditional and state-of-the-art instruments and equipment. Prerequisites: ES 150 and 330. Offered Summer Pre-Session annually.
- ES/GEOG 470: INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS WITH LABORATORY** **4 s.h.**
 Addresses basic concepts and principles of geographic information systems, data models, data structures, applications, and technical issues. Lab focuses on how these basic principles are implemented in a GIS. These include an entire sequence of building spatial database: data capturing, editing, adding attributes, building topography, registering layers to real-world coordinates, making map compositions, data conversion, and basic analysis. Fall, annually.

ES/BIOL 476/

SCED 576: SCIENCE, TECHNOLOGY, AND SOCIETY: TOPICS FOR TEACHERS 3 s.h.

Interdisciplinary course covers topics in biology, earth science, chemistry, and physics. Acquaints students with information, curricula, and teaching methodologies appropriate for teaching STS topics in traditional science courses. Involves students in hands-on activities concerning science computer software, testing water for chemical and biological agents, and remote sensing techniques in geology, geography, physics, and medicine. Ethical issues and scientific principles concerning computers, energy, nuclear waste, biotechnology, and others, will be investigated and discussed. Participants will develop curriculum activities for implementation in their science discipline. Required course for environmental biology, general science, and earth science certification. Prerequisite: Junior standing. Annually.

ES /GEOG 490: ADVANCED GEOGRAPHIC INFORMATION SYSTEMS WITH LABORATORY 3 s.h.

Provides students with the ability to apply GIS for spatial problem solving in applied settings. Lecture and application-/project-based. Lecture covers spatial modeling and analysis based on a raster data structure. Laboratory sessions introduce students to three-dimensional surface modeling, cost-distance analysis, runoff modeling, and diffusion analysis. Prerequisite: GEOG/ES 470. Each Spring Semester.

German

GERMAN, MINOR. See Modern Languages and Cultures.

History

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History is the discipline of critical inquiry into the human past. The history major introduces students to the study of causes and consequences of change through an examination of social, political, economic, cultural, and intellectual developments over time. The enterprise of history is much more than a recitation of facts and dates. It encourages students to examine the values of their society and those of other societies. It prepares students to read critically, think analytically, and argue logically about the events and forces that have shaped past and present worlds. These skills have served students well in a wide range of careers in business, law, public policy and advocacy, education, journalism historical societies, museums, and archives.

The department’s goal is to help students view issues from a variety of perspectives. To assure breadth and depth, the history faculty offer courses in areas that span the globe

as well as time. Students can take courses in the history of the United States, Europe, Russia, Asia, Africa, and Latin America. Students can also explore history through a number of distinctive specializations such as women’s history, labor history, the history of religion, and African American history, as well as through methods courses in historical research and historiography. In addition, the History Department offers minors in ancient Mediterranean studies and black studies.

The black studies minor invites students to investigate the variety of black experiences in Africa and the African diaspora including North America, South America, the Caribbean, Europe, and Australia. At Clarion, students can study history as the foundation of a comprehensive, challenging liberal arts education while preparing themselves for numerous career opportunities.

- HISTORY, B.A.**51 credits
Required: U.S. history—12 credits; European history—15 credits; history of other geographical areas—6 credits; and 12 credits of history electives. HIST 410 and 298 are required. Students must complete a foreign language requirement.
- SECONDARY EDUCATION, B.S.ED.**
Certification for grades K-12, Social Studies (see under Secondary Education Social Studies), page 156.
- HISTORY, MINOR** 18 credits
Required: 18 credits (nine of which must be at 300- or 400-level).
- HISTORY, MINOR IN ANCIENT MEDITERRANEAN STUDIES** 18 credits
Required: 18 credits chosen from a menu of interdisciplinary courses.
- HISTORY, MINOR IN BLACK STUDIES** 18 credits
Required: 6 credits in history and 12 credits chosen from a menu of interdisciplinary courses.

History Courses

HIST 110: COMPARATIVE HISTORY OF CIVILIZATION IN ASIA 3 s.h.

Explores an overview of all of Asian history from the birth of civilization to the present. Emphasizes identification of a number of significant stages of historical development in the life of civilizations. Clarifies the sociocultural subdivisions within Asia. On demand.

HIST 111: ANCIENT AND MEDIEVAL CIVILIZATION 3 s.h.

Includes a survey of prehistoric cultures and civilization from its historical beginning to 1300. Presents a knowledge of the origins of the broad social, political, intellectual, and economic movements of the past from which the student may gain an understanding of civilization today. Each semester.

HIST 112: EARLY MODERN CIVILIZATION, 1300 TO 1815 3 s.h.

A study of significant movements and events from 1300 to 1815. Emphasizes the interrelationships between cultures of various world regions. Stresses the influence of European development on other world areas. Each semester.

- HIST 113: MODERN CIVILIZATION, 1789 TO THE PRESENT** **3 s.h.**
A study of significant movements and events of 1789 to the present. Emphasizes interrelationships between the cultures of various world regions, with major attention on the influence European development has exerted on other world areas in the 19th and 20th centuries. Each semester.
- HIST 120: UNITED STATES HISTORY TO 1877** **3 s.h.**
Surveys United States history from the period of exploration through the Reconstruction period. Each semester.
- HIST 121: UNITED STATES HISTORY SINCE 1877** **3 s.h.**
Surveys United States history from Reconstruction to the present. Each semester.
- HIST 130: AFRICA TO 1800** **3 s.h.**
Explores the history of Africa and its people from ancient times through the Atlantic slave trade. Emphasizes understanding the impact of cultural/ethnic diversity on the development of this history. Examines historical questions concerning the early record, migration, African kingdoms, trade and economy, impact of Islam on Africa, the European Age of Discovery, and the effects of the Atlantic slave trade upon African societies. On demand.
- HIST 131: AFRICA SINCE 1800** **3 s.h.**
Explores the history of Africa and its people from the end of the Atlantic slave trade to the modern period. Includes the expansion of European influence on Africa during the 19th century, the partition of Africa, the many forms of African resistance to European rule, the impact of the Colonial era, African nationalism and independence struggles, and the challenges facing independent African states. On demand.
- HIST 215: TOPICS IN HISTORY** **1-3 s.h.**
Topical approach to the study of history, permitting students to pursue an in-depth examination of selected problems. Introductory level. On demand.
- HIST 217: HISTORY OF WEST AFRICA** **3 s.h.**
Examines the history of West Africa from 800 A.D. to the present. Includes the introduction of Islam to West Africa; the internal factors which transformed local societies, states, and empires; the impact of European trade and imperialism; forms of resistance to Colonial rule; the rise of nationalism and the struggle for independence; and the challenges of the post-independence period.
- HIST 254: HISTORY OF LATIN AMERICA: COLONIAL PERIOD** **3 s.h.**
Surveys the development of Colonial Latin America from its discovery to 1825. Analyzes economic, social, political, and cultural development. Fall, alternate years.
- HIST 255: HISTORY OF LATIN AMERICA: NATIONAL PERIOD** **3 s.h.**
Emphasizes the history of the Latin American countries since 1825. Analyzes economic, social, political, and cultural development. Fall, alternate years.
- HIST 260: NAZISM, HITLER, AND THE HOLOCAUST** **3 s.h.**
Examines the Nazi Party from its beginnings in 1919, its gestation in the Weimar Republic period, and its supremacy in Germany, from 1933 to the end of World War II. Includes an examination of the social and intellectual background of Nazism. Emphasizes the personalities of the Third Reich leadership. Concludes with an examination of the Holocaust. Spring, annually.
- HIST 275: INDIA THROUGH THE AGES** **3 s.h.**
Examines the historical development of Indian civilization from its early origins to the coming of the Europeans. Emphasizes the classical period, religion, social organizations, and the ancient Hindu and medieval Muslim periods. Spring, alternate years.
- HIST 286: HISTORY OF MODERN CHINA AND JAPAN** **3 s.h.**
Study of the transformation that has taken place in China and Japan in modern times as a result of an external impact as well as forces within Far Eastern societies. Spring, alternate years.
- HIST 298: HISTORICAL METHODS** **3 s.h.**
Introduces the research methods, utilization of historical sources, documentation, and writing skills necessary to complete a significant historical research project. Skills mastered in this course should enable students to improve the quality of all writing and research required in all 300-level courses offered in the History Department. Focuses on American, European, or non-Western civilization, depending upon the instructor. Permission of instructor required. Required for all history majors. Spring, annually.
- HIST 302: WOMEN IN THE UNITED STATES** **3 s.h.**
Explores the history of American women from Colonial times to the present. Examines women's diverse experiences and roles, the relationship between women and the rest of society, gender expectations, 19th- and 20th-century feminism, reform and political activities. Alternate years.
- HIST 303: HISTORY OF MEXICO** **3 s.h.**
A history of Mexico from pre-Columbian times to the present. Emphasizes the rise and fall of advanced ancient civilizations, European conquest and colonialism, the struggle for independence, Mexico's social revolution, the rise of nationalism, and the current drive for modernization in the so-called "Third World." No prerequisite. Spring, alternate years.
- HIST 305: HISTORY OF SOUTHERN AFRICA SINCE 1800** **3 s.h.**
Examines the growth of the European population of the Cape Colony; Shaka's Zulu empire; the Great Trek of the Boers; the creation of new states; the discovery of gold and diamonds; the creation of modern South Africa, Lesotho, Swaziland, and Botswana; the rise and fall of apartheid; and regional conflicts.
- HIST 310: AFRICA, SLAVERY, AND THE SLAVE TRADE** **3 s.h.**
Explores the history of slavery within Africa from its origins to its end. Draws on recent historical and anthropological research to investigate such topics as links between internal slavery and the external slave trades; processes of enslavement; the positions and roles of slaves in African societies; the ideology of slavery; slave trading networks and markets within Africa; the effects of slavery on specific African societies; resistance to slavery; and the long-term consequences of slavery. Fall Semester.

- HIST 312: NATIVE AMERICAN HISTORY** **3 s.h.**
Examines the history of Native American societies from pre-contact to the present, focusing on the past and present diversity of Indian peoples. The course will examine indigenous social structures, languages, and religions. In addition, the course will discuss historic changes in Indian societies as a result of contact with Europeans and Africans and their descendants. In the colonial period, topics covered will include first-contact situations, warfare, disease, and diplomacy. Later topics will include 19th- and 20th-century debates over education, assimilation, economic development, and sovereignty.
- HIST 315: TOPICS IN HISTORY** **1-3 s.h.**
Topical approach to the study of history, permitting students to pursue an in-depth examination of selected problems. Advanced level. On demand.
- HIST 318: ANCIENT GREECE** **3 s.h.**
Examines development of ancient Greece from its earliest precursors in Mycenaean civilization, through the growth of the city-states of classical Greece, to its blending with other cultures in the Hellenistic World. Addresses political, social, and cultural developments, historical problems, and the historical narrative. Fall, alternate years.
- HIST 319: ROMAN HISTORY** **3 s.h.**
Examines development of Rome from its foundation as a city-state in central Italy in the mid-eighth century B.C. to its conquest of the Mediterranean World as a republic and finally to the end of the Roman Empire in the West in the fifth century A.D. Addresses political, social, and cultural changes and will be historiographic as well as historic in outlook. Spring, alternate years.
- HIST 320: MEDIEVAL HISTORY** **3 s.h.**
Surveys European development from 500 to 1300. Alternate falls.
- HIST 330: EUROPE DURING THE RENAISSANCE AND REFORMATION** **3 s.h.**
A study of the Renaissance and Reformation emphasizing the important political, social, economic, religious, and cultural forces that emerged during this period of transition and ushered in modern western culture. Emphasizes the evolution of modern states, the rise of individualism, and the development of modern religious ideas and institutions.
- HIST 345: HISTORY OF EUROPE FROM 1815 TO 1924** **3 s.h.**
A study of the social, economic, political, religious, and cultural experiences of the European people from the Congress of Vienna to the death of Lenin. On demand.
- HIST 349: THE AMERICAN WEST** **3 s.h.**
Study of the Old West of the 19th century and the West as a distinctive region in the 20th century. Emphasizes the continuing relationship to the East and on the geographic, economic, and cultural diversity within the West itself. Pioneers from the East, Native Americas, immigrants from Europe, Mexico, and Asia, farmers, cowboys, and entrepreneurs will all have a place in the course. Romanticized myths of the West will be compared with historical realities. Prerequisite: HIST 120 or consent of the instructor. Fall Semester.
- HIST 350: COLONIAL AMERICA** **3 s.h.**
A study of colonial history beginning with the European background of colonization and continuing through the American Revolution. Prerequisite: HIST 120 or consent of instructor.
- HIST 351: UNITED STATES : THE EARLY REPUBLIC** **3 s.h.**
A study of the Federalist Era, Jeffersonian and Jacksonian America. Examines the formation of the republic through the federal Constitution, the Jeffersonian revolution, and the age of Jackson. Analyzes the ideas and personalities that shaped the nation. Prerequisite: HIST 120 or consent of instructor.
- HIST 352: CIVIL WAR AND RECONSTRUCTION** **3 s.h.**
A basic study of the growth of sectional differences between North and South from 1820 to 1850. Examines the failure of compromise efforts in the 1850s and the causes of secession. The war and the consequences of reconstruction policies to 1877 are traced in light of modern civil rights problems. Fall, alternate years.
- HIST 353: U.S. AGE OF REFORM (1870-1920)** **3 s.h.**
A detailed look at the gilded age, populist, and progressive periods in American history. Examines the reform phenomena that characterized the late 19th and early 20th centuries. Emphasizes the motivation, objectives, accomplishments, and failures of the various reform movements. Considers each reform group in the context of a period of rapid social and economic change. Prerequisite: HIST 121 or consent of instructor.
- HIST 357: TUDOR-STUART ENGLAND** **3 s.h.**
Examines the significant political, cultural, social, and religious developments in England from the accession of Henry VII to the death of Queen Anne and the transition to the House of Hanover. Spring, alternate years.
- HIST 363: HISTORY OF AMERICA LABOR** **3 s.h.**
Examines the history of American working men and women from the Colonial period to the present. Explores the growth of the trade union movement and its sociopolitical and economic impact, and the nature of the work performed by labor and the way laboring people have lived. On demand.
- HIST 366: RUSSIA SINCE 1815** **3 s.h.**
Examines Russia's development during the 19th and 20th centuries. First part of course focuses on Russia and its people under the czar and the drift to revolution. Second part of course focuses on Soviet society and communism in theory and practice.
- HIST 367: COMPARATIVE SLAVERY** **3 s.h.**
Introduces students to the history and diverse nature of slavery in North America and the Caribbean. Students analyze how the institution of slavery changed over time and differed by geographic region. Includes origins of the Atlantic slave trade and the Caribbean's central role, interstate slave trade, slave cultures and communities, differences between rural and urban slavery, slave hiring, slaveholding by free people of color, and interlocked relationships between white people and people of color. Prerequisite: HIST 120 or permission of instructor. Alternate years.

- HIST 369:** *AFRICAN-AMERICAN HISTORY: 1865 TO PRESENT* **3 s.h.**
 A survey of African-American history from 1865 to the present, with an emphasis on the evolving role of black people in the political, economic, social, and cultural development of the United States. Includes a close examination of the junctures in American history where the struggle to improve African-American life took on new meaning for society at large. Prerequisite: HIST 121 or consent of the instructor. Fall or Spring, alternate years.
- HIST 370:** *HISTORY OF THE MIDDLE EAST* **3 s.h.**
 Study of the early classical era by way of an advanced intensive exploration of the civilization in the Mediterranean East and Middle East. Introduces the religion of Judaism and Christianity in their political setting, and examines the cultural contributions of the Semites, Greeks, and Romans. Stresses the Islamic age. Emphasizes modern identification of the countries that make this an explosive part of the world—Jordan, Israel, Lebanon, Iran, Iraq, Arabia, Syria, Egypt – and their relationship to the great powers. On demand.
- HIST 371:** *AMERICAN POPULAR CULTURE, 1865 TO PRESENT* **3 s.h.**
 Examines popular culture in the United States from the Civil War to the present, focusing specifically on its relationship to consumption, leisure, politics, race, class, gender, social movements, celebrity, and the corporate world. Topics are drawn from varied arenas of popular culture including sports, film, literature, art, theater, music, photography, tourism, amusement venues, and advertising, among others. Prerequisite: HIST 121. Fall or spring, alternate years.
- HIST 372:** *THE AMERICAN REVOLUTION* **3 s.h.**
 Provides undergraduates with a detailed narrative of the American Revolution. Evaluates the causes and consequences of the colonial rebellion against the British Empire in North America, and assesses the preconditions, constraints, and outcomes of the struggle for independence. Particular attention is given to the clash of values, interests, and ambitions that transformed the thirteen colonies into the United States. Moreover, significant themes of cultural, economic, military, diplomatic, and political conflict are explored. Prerequisite: HIST 120. Fall or spring, alternate years.
- HIST 388:** *U.S.: 1920 TO 1960* **3 s.h.**
 Surveys the principal social, political, cultural, and economic developments in American society from 1920 to 1960. Includes social tensions and social conflicts during the 1920s, the impact of the Great Depression and the significance of the New Deal, isolationism and internationalism, America during World War II, the Cold War, McCarthyism, the rise of the Civil Rights movement, and the Affluent Society. Prerequisite: HIST 121. Fall or Spring, alternate years.
- HIST 389:** *U.S.: 1960 TO THE PRESENT* **3 s.h.**
 Introduces students to the political, economic, social, and cultural forces that shaped America from 1960 to the present. Includes John Kennedy and the New Frontier, Lyndon Johnson and the Great Society, the modern Civil Rights movement, American involvement in Vietnam, the counterculture, Richard Nixon and Watergate, the end of the Cold War, the feminist and environmental movements, the New Right of the 1980s and New Liberalism of the 1990s; and the Gulf War and war on terrorism, among others. Prerequisite: HIST 121 or consent of the instructor. Fall or Spring, alternate years.
- HIST 398:** *QUANTITATIVE METHODS FOR HISTORIANS* **3 s.h.**
 Applies statistical techniques to historical research. Students briefly review basic statistical techniques; investigate, in depth, the application of statistical manipulation to historical data; and explore current historical research employing these methods. Introduces students to computer applications of statistics through a social science software package in a hands-on lab. Focuses on the capabilities, appropriateness, and limitations of quantitative methods within the historical discipline. Prerequisite: CIS 217 and PSY 230 or ECON 221 or MATH 221 or 222.
- HIST 402:** *INDEPENDENT STUDIES* **1-6 s.h.**
 Variable credit course gives students the opportunity to explore an area of special interest in history not covered by existing courses through field experience or independent study. Focus can be an historical topic and/or the development of skills that aid historical research. Prior to enrolling in the course, students must develop a study plan in conjunction with the faculty member willing to serve as supervisor and approved by the department. The student will work under the direction of an appropriate faculty member. Credit will be given only when the project has been completed to the satisfaction of the project advisor. On demand.
- HIST 410:** *HISTORIOGRAPHY* **3 s.h.**
 Introduces historical method and theory. Explores a variety of interpretive theories and specialized approaches employed by contemporary historians to traditional and non-traditional problems. Emphasizes development of the student's critical abilities. Permission of instructor required. Fall, annually.
- HIST 432:** *THE VIETNAM WAR* **3 s.h.**
 Examines U.S. involvement in Vietnam from 1945 to the present, with a primary focus on the Vietnam War and its political, economic, social, and cultural impact upon American society. Topics covered include the roots of Vietnamese revolutionary thought, the rise of Ho Chi Minh and communism in Vietnam, the French-Indochina War, U.S. military engagements from 1965 through 1973, the political and cultural antiwar movement in America, the peace accords, and the aftermath of the conflict, among others. Prerequisite: HIST 121 or consent of the instructor. Fall or Spring, alternate years.
- HIST 460:** *HISTORY OF RELIGION IN THE UNITED STATES* **3 s.h.**
 A study of American religious history from the colonial period to the present. Examines the histories of individual religious institutions and their interaction within their social and intellectual context, focusing upon the paradox of mainstream American Protestantism within a pluralistic religious culture. On demand.
- HIST 481:** *FRANCE: 1483-1715* **3 s.h.**
 Examines the significant political, cultural, social and religious developments in France from the accession of Charles VIII to the death of Louis XIV. No prerequisite. Alternate years.

Liberal Studies

Liberal Studies is a multidisciplinary degree program administered by the office of the dean in the College of Arts and Sciences, the College of Education and Human Services, the College of Business, and Student Affairs. The B.S. in liberal studies is a major program designed to provide (1) a structured program that encourages students to explore a diversity of academic skills and disciplines, (2) a liberal arts program for students who have not decided upon a specific school or major, and (3) an option for students who have a desire to specialize in a combination of courses for which a dedicated major does not already exist. It is not necessary for students who enter the university undecided about a major to continue in liberal studies through graduation. Many students who begin in the liberal studies program develop interests that lead them to declare a specific major. Conversely, some students who have completed the core of a degree program opt for liberal studies when their career goals change. Students cannot dual degree or dual major with liberal studies.

General Requirements

Admission requirements for the B.S. in liberal studies are the same as those for admission to the university. The degree is based upon the standard eight-semester sequence of courses and requires a minimum of 120 semester hours for graduation.

Academic standards for good standing in the program are the same as the university standards for good standing. To earn the B.S. in liberal studies, the student must complete 48 credits and have a minimum cumulative quality-point average of 2.00 for all course work.

Specific Requirements

Forty-eight credits are general education classes as required by the university constituting courses in specific categories within arts and sciences. In addition to general education classes, liberal studies students complete 24 credits of lower-level (100-200) and 24 credits of upper-level (300 and above) Arts and Sciences courses. An additional 24 credits of elective coursework may be selected from any discipline. Maximum course work in a single discipline is limited to 39 credit hours. All courses must be selected in consultation with an advisor.

Programs Administered Through the College of Arts and Sciences

LIBERAL STUDIES, B.S.,

REQUIREMENTS IN MAJOR48 credits
A minimum of 24 credits must be earned in the College of Arts and Sciences at or above the 300 level. No more than 39 credits may be represented in a single discipline.

LIBERAL STUDIES, B.S.,

CONCENTRATION IN EDUCATION 72 credits
Required: ED 110, 121 or 122, 225, 327, 329, 417, and SPED 418; a minimum of 51 credits must be earned in the College of Arts and Sciences; a minimum of 30 credits must be at or above the 300 level. Restricted to seniors.

LIBERAL STUDIES, B.S.,

CONCENTRATION IN ENGLISH72 credits
Required: One course from ENG 130, 140, 150, 199, 230, 231, 242, 244, 249, 250, or 265; two courses from ENG 221, 222, 225, 226, 227, or 228; two courses from ENG 200, 202, 207, 263, 301, 303, 304, 306, 307, or 356; one course from ENG 227, 228, 230, 231, 331, or 354. The same course may not be used to fulfill two core requirements. English electives: 21 credits at a 300-400 level. Required core courses and upper-level English electives must total 39 credits; an additional 33 credits in arts and sciences must be earned (18 at the 300 level or above).

LIBERAL STUDIES, B.S.,

CONCENTRATION IN WRITING72 credits
Required: 24 credits in English writing courses; 15 credits in non-writing English courses (literature, drama, movie studies, folklore, linguistics); 33 additional credits in Arts and Sciences courses, excluding English.

LIBERAL STUDIES, B.S., CONCENTRATION IN

GEOGRAPHY AND SUSTAINABLE PLANNING72 credits
Required: GEOG 100, 257, 310, GEOG/ES 385, 400, 470, and ES 150. One course from GEOG 250, 252, or 490; one course from GEOG 260, 265, or 310; one course from GEOG/ES 345, 425, 490; 39 additional credits at the 300 level or above.

LIBERAL STUDIES, B. S.,

CONCENTRATION IN THEATRE..... 72 credits
Required: THE 161, 253, 254, 359, 360; two courses from THE 155, 201, 204, 301, 310, 311, 321, 352, 361, 368, 369, 370, 461; one course from THE 350 or 351; two courses from THE 251, 262, 271, 362, 363, 366, 367, 371; one course from THE 300-499; two courses from ENG 140, 342, 343, 344, 345, 412, 413; three credits from THE 103 (maximum 2 credits) or 104. Remaining 30 credits from College of Arts and Sciences courses numbered 100-499.

LIBERAL STUDIES, B. S.,

CONCENTRATION IN WOMEN AND GENDER STUDIES 72 credits
Required: 21 credits of women and gender studies courses; WGS 100: Survey of Women and Gender Studies; at least twelve other credits at the 300-400 levels. Eighteen credits to be selected from ANTH 216, 315; ART 216; ED/WGS 406; ENG 265, 365; GEOG 315; HIST 230; HPE 370; PHIL 357; PSY 220, 340, 390; CMST 281, 320; SOC 311, 352, 362, 452; WGS 200, 300, 311.

Programs Administered Through the College of Education and Human Services

LIBERAL STUDIES, B.S.,

CONCENTRATION IN LIBRARY SCIENCE48 credits
The B.S. in liberal studies with a concentration in library science prepares students to work as paraprofessionals and provisional librarians in a variety of settings, including public libraries in Pennsylvania. It introduces students to the exciting worlds of information management and information transfer, in both traditional and emerging venues. The B.S. in liberal studies with a concentration in library science serves as an excellent preparation for studying toward a master's degree in library setting (such as Clarion's American Library Association-accredited MSLS degree), which is the recognized professional credential for the practice of librarianship.

Required: LS 255, 257, 258, 357, 361, and 385. A minimum of 15 credits must be at the 300 level or above.

Programs Administered Through the Division of Student Affairs

LIBERAL STUDIES, B.S.,

CONCENTRATION IN SPORTS MANAGEMENT 72 credits
Required: HPE 370, 380, 430, 440, MGMT 320, 430, and COOP 447.
 One course from ECON 175, 211, or 212. A minimum of 39 credits must be at the 300 level or above. Students enrolled in this concentration are not eligible to receive the Sport Management minor.

LIBERAL STUDIES, B.S.,

CONCENTRATION IN ATHLETIC COACHING 72 credits
Required: HPE 333, 334, 406, 407, 408, 409, 440, and COOP 444.
 Two courses from HPE 351, 352, or 354. A minimum of 39 credits must be at the 300 level or above.

Library Science

Liberal arts students, regardless of their major, may qualify as provisional librarians under the Pennsylvania Library Code by successfully completing at least 12 library science credits (semester hours).

Mathematics

Department of Mathematics, Adam E. Roberts, Ph.D., Chair

189 Science and Technology Center
 Telephone: 814-393-2592
 E-mail address: aroberts@clarion.edu
 Website: www.clarion.edu/math

Professors: Beal, Bhattacharya, Bolinger, Gendler, Madison, McConnell

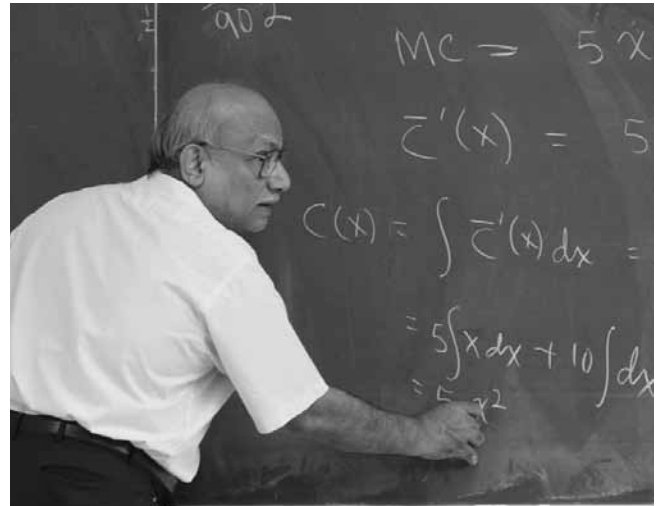
Assistant Professors: Childers, Hipfel, Jackson, Roberts

Mathematics is the science of numbers and the abstract formulation of their operations. Quantitative skills acquired through this study are useful in career fields which include computer science, business, actuarial science, engineering, life and physical sciences, medicine, and research. Actuaries concentrate on the study of actuarial science and usually work for the government, an insurance agency, or a consulting firm. They interpret statistics to determine the likelihood of injury, sickness, death, or loss of property among various population groups and develop insurance rates and plans for these groups.

The university is an official testing site for the Society of Actuaries. A departmental microcomputer lab provides mathematics students with hands-on computer experience. The department is a part of the 3/2 Engineering Program with University of Pittsburgh and Case-Western Reserve University.

Allied activities include a Mathematics Club open to all students, a weekly problem contest (at the end of the semester a prize is awarded to the student who solves the most problems), and Pi Mu Epsilon, a national mathematics honorary.

Entry-level jobs available to graduates in this field include: actuary, computer programmer, engineer, internal revenue agent, military intelligence officer, pension administrator, rate analyst, research mathematician, statistician, systems



analyst, cryptanalyst, and teacher. Among the employers who hire graduates: banks, computer services, consulting firms, corporations, educational institutions, engineering firms, government agencies, insurance companies, manufacturing firms, pharmaceutical companies, and research and development laboratories. Most mathematics graduates go directly into the field where they can earn good salaries, even at entry level. A few go immediately into graduate schools for further study.

High school students who are interested in a mathematics career should take at least five years of mathematics: geometry, trigonometry, two years of algebra, and a third year of algebra or precalculus. It is not necessary to study calculus in high school.

MATHEMATICS, B.S. IN MATHEMATICS

..... 57 credits
Required: MATH 270, 271, 272, 300, 390, seminar, and 30 credits in mathematics electives from 300-level courses and above, at least 12 credits of which must be at the 400 level. Additional required courses include: CPSC 201, 301, and PH 258. A minimum of C grade in MATH 270, 271, 272 and ENG 111 is required.

MATHEMATICS (COOPERATIVE ENGINEERING PROGRAM)

..... 66 credits
Required: MATH 270, 271, 272, 300, 350, 370, and 18 credits in mathematics or approved engineering electives. In addition to these 39 credits, the following courses are required: PH 258, 268, 259, 269, 351, 352; CHEM 151, 161, 152, 162; CIS 163. See also the Cooperative Engineering Program description on page 79.

SECONDARY EDUCATION, B.S.Ed.

Certification for grades K-12, Mathematics (see under Secondary Education Mathematics), page 158.

MATHEMATICS (MINOR)

..... 20 credits
Required: MATH 270 or 260, MATH 271, and 12 credits of 272-level or higher mathematics courses.

MATHEMATICS

(MINOR WITH CONCENTRATION IN STATISTICS) 20 credits

Required: MATH 221 or 222, 225, 260, 321, 322, and three credits of MATH 271 or higher-level courses.

Mathematics Courses

Placement in mathematics courses is based on the student's mathematics placement test score. Results are made available before the students register. Students must register for the appropriate level mathematics course as determined by the placement score. For more details, students should contact the chair of the Mathematics Department.

- MATH/AS 010: PREPARATION FOR COLLEGE MATHEMATICS** **3 s.h.**
Covers basic arithmetic and geometric principles necessary for the subsequent study of introductory algebra and other more advanced courses requiring a basic mathematics competency. Emphasizes decreasing mathematics anxiety, the development of mathematics text-reading abilities, including the study of vocabulary unique to the mathematics discipline, development of estimation skills, interpretation of data, mental mathematics, and critical thinking. Major learning modalities are written response, calculator use and experimentation, analysis activities, and problem-solving. Credits in this course do not count toward general education or graduation. Credit/No Record only.
- MATH 050: BASIC ALGEBRA** **3 s.h.**
Introduces basic arithmetic and algebraic concepts, including an introduction to real numbers and algebraic expressions, solving equations and inequalities, polynomials, factoring, graphing, and systems of equations. Credits in this course do not count toward general education or graduation. Each semester.
- MATH 110: INTERMEDIATE ALGEBRA** **3 s.h.**
Covers topics in algebra beyond the introductory level, yet less than the precalculus level. No student who has satisfactorily completed MATH 131 or a higher-numbered mathematics course may subsequently receive credit for MATH 110. Prerequisite: C or better in MATH 050 or satisfactory score on the department's placement examination. Each semester.
- MATH 111: MATHEMATICAL CONCEPTS IN GRADES K-8** **3 s.h.**
Examines operations and properties of integers, fractions, and decimals. Includes elementary set theory, number theory, and functions. Covers conceptual foundations of the numerical content of the mathematics curriculum in the elementary and middle grades, emphasizing problem solving. MATH 111 is the first in a two-part sequence; the study of measurement, geometry, data gathering, and other topics are included in MATH 211. Prerequisite: C or better in MATH 050 or satisfactory score on the departmental placement examination. Each semester.
- MATH 112: EXCURSIONS IN MATHEMATICS** **3 s.h.**
Acquaints students with the nature and scope of modern mathematics and its applications. Emphasizes concepts and understanding rather than acquisition of techniques. Prerequisite: C or better in MATH 050 or satisfactory score on the departmental placement examination. Each semester.
- MATH 113: QUANTITATIVE REASONING** **3 s.h.**
Helps students develop quantitative reasoning skills. Core content, common to all sections, covers elements of descriptive statistics with particular emphasis on the representation of data. Additional topics, covered at the instructor's discretion, may include basic finance, probability, and logic. Prerequisite: Math 112. Each semester.
- MATH 131: APPLIED FINITE MATHEMATICS** **3 s.h.**
Covers mathematical techniques with special applications in business and related areas. Includes matrices, linear programming, and mathematics of finance. Prerequisite: MATH 110 or satisfactory score on the departmental placement examination. Each semester.
- MATH 140: ESSENTIAL TOPICS IN DISCRETE MATHEMATICS** **3 s.h.**
An introduction to the discrete mathematics essential for coursework in computer science. Elementary coverage of proofs including mathematical induction, sets, functions, relations, Boolean algebra, number theory, combinatorics, analysis of algorithms including recursive algorithms, matrices, and the logic of control and data storage through hand computation. This course should be taken in a computer science major's first year.
- MATH 171: PRECALCULUS** **4 s.h.**
Prepares students for calculus by covering high school algebra, functions, inequalities, analytic trigonometry, logarithms, elementary theory of equations, complex numbers, and mathematical induction. Prerequisite: MATH 110 or satisfactory score on the departmental placement examination. Each semester.
- MATH 211: FUNDAMENTAL TOPICS IN K-8 MATHEMATICS** **3 s.h.**
Investigates selected topics considered essential to the basic mathematics curriculum in the elementary and middle grades. Includes introductions to mathematical reasoning, additional problem-solving techniques, probability and data analysis, geometry and measurement. Math 211 is the second in a two-part sequence beginning with MATH 111. Prerequisite: C or better in MATH 111. Each semester.
- MATH 212: INTUITIVE GEOMETRY** **3 s.h.**
Intuitive overview of geometry: Euclid's Axioms, exploration of relationships, measurement and coordinate geometries, geometrics on other surfaces, and geometry in nature and art. Prerequisite: Any 100-level mathematics course. On demand.
- MATH 213: INTUITIVE CALCULUS** **3 s.h.**
Explores development of the basic properties of the real number system and calculus, including functions, sequences, limits, continuity, integrals, and derivatives. Examines topics graphically, symbolically, and numerically. Prerequisite: Any 100-level mathematics course. On demand.
- MATH 214: FINITE MATHEMATICS** **3 s.h.**
Introduces basic properties of finite mathematics, including logic, counting techniques, elementary probability, and application to social and computer science. Prerequisite: Any 100-level mathematics course. On demand.
- MATH 215: MATHEMATICAL CONCEPT LABORATORY – AN ACTIVITY-ORIENTED APPROACH** **2 s.h.**
Develops certain concepts of mathematics using an activity-oriented approach. Conducted in a laboratory atmosphere. Includes the rational number system, number theory, induction, measurement, geometric shapes. On demand.
- MATH 221: ELEMENTARY APPLIED STATISTICS** **3 s.h.**
Examines basic principles and methods of statistical analysis useful in the social sciences, biology, and education. Designed specifically for students not majoring in mathematics. Prerequisite: C or better in MATH 050 or satisfactory score on the departmental placement examination. Each semester.

- MATH 222:** *ELEMENTARY NONPARAMETRIC STATISTICS* **3 s.h.**
Examines statistical methods for experiments that yield small samples and/or ordinal data, methods for dealing with data from unknown or intractable distributions, and the basis for a well-designed experiment. Prerequisite: C or better in MATH 050 or satisfactory score on the departmental placement examination.
- MATH 225:** *ELEMENTARY SURVEY SAMPLING* **3 s.h.**
Addresses the problems of bias—in both the mathematics and the survey designs, while introducing the student to the major survey designs. Prerequisite: MATH 221, 222, or 321 or permission of instructor.
- MATH 232:** *CALCULUS FOR BUSINESS I* **3 s.h.**
Examines differential calculus with application to business and the social sciences. Topics include limits, derivatives, maxima and minima, and an introduction to integration. *MATH 232-3 are designed for students outside the natural sciences.* Prerequisite: MATH 110 or adequate placement in the mathematics placement examination. Each semester.
- MATH 233:** *CALCULUS FOR BUSINESS II* **3 s.h.**
Applies integral calculus to business and the social sciences. Includes rules of integration, definite and indefinite integrals, series, and partial derivatives. *MATH 232-3 are designed for students outside the natural sciences.* Prerequisite: MATH 232 or the equivalent.
- MATH 260:** *APPLIED CALCULUS* **4 s.h.**
Covers the concepts and applications of differential and integral calculus. Includes derivatives and their applications, integrals and their applications, integration techniques, numerical integration, and the calculus of several variables. *For students in the social, behavioral, and biomedical sciences.* Prerequisite: MATH 171 or satisfactory score on the departmental placement examination. Each semester.
- MATH 270:** *CALCULUS I* **4 s.h.**
Covers elementary analytic geometry, limits, continuity, differentiability, applications, definition of the Riemann integral, and the fundamental theorem of Calculus. *Students in mathematics and sciences and better-prepared students in other disciplines are encouraged to select MATH 270-271.* Prerequisite: C or better in MATH 171 or satisfactory score on the departmental placement examination. Each semester.
- MATH 271:** *CALCULUS II* **4 s.h.**
Reviews limits and definition of the Riemann integral. Covers applications, integration techniques, and topics in analytic geometry. Prerequisite: MATH 270. Each semester.
- MATH 272:** *CALCULUS III* **4 s.h.**
Reviews sequences and series. Analyzes geometry of 3-space, vectors, vector functions, basic properties of limits, continuous and differentiable functions of several variables, and multiple integrals. Prerequisite: MATH 271. Each semester.
- MATH 285:** *MATHEMATICAL MODELING* **3 s.h.**
Develops higher-level problem solving strategies using mathematics to solve real world problems. Applications from diverse disciplines will be represented by mathematical models that will then be solved and analyzed in the context of each problem. Prerequisite: ENG 110 (or equivalent) and one of either MATH 270 or 260, both with grades of C or better. Annually.
- MATH 290:** *CALCULUS WORKSHOP* **1 s.h.**
Overview of the calculus sequence that allows students to examine problems in differential and integral calculus by applying simultaneously the methods learned from the entire sequence. Discusses some new topics and techniques in analysis. Prerequisite: MATH 272. Annually.
- MATH 295:** *PROJECTS IN MATHEMATICS* **1-2 s.h.**
Designed to provide undergraduates with practical experience in the real-world use of mathematics. Students will work on projects that provide exposure to emerging areas of mathematics such as applied mathematics, mathematical modeling, industrial mathematics, computational science, and mathematical programming. A maximum of eight credits in this course may be applied toward graduation. Prerequisite: Permission of instructor. Each semester.
- MATH 300:** *AN INTRODUCTION TO ADVANCED MATHEMATICS* **3 s.h.**
Rigorous approach to the study of the standard methods of mathematical proof applied to topics in the theory of numbers, sets, functions, and analysis. Prerequisite: MATH 271.
- MATH 321:** *INTERMEDIATE APPLIED STATISTICS* **3 s.h.**
Provides an overview of the basic theory and application of mathematical statistics. Emphasizes understanding and applying basic statistical theory. Prerequisite: MATH 271. Fall, annually.
- MATH 322:** *INTERMEDIATE STATISTICS II* **4 s.h.**
Examines in further detail the analysis of variance, factorial experiments, and multiple regression. Prerequisite: MATH 321 (MATH 221/222 with instructor's permission).
- MATH 340:** *DISCRETE MATHEMATICAL STRUCTURES* **3 s.h.**
Emphasizes concrete models, sets, relations, functions, combinations, graphs, and trees. Includes computer algorithms and mathematical structures useful in computer science. Designed for students in both mathematics and computer science. Prerequisites: MATH 300 and CPSC 201.
- MATH 350:** *ORDINARY DIFFERENTIAL EQUATIONS* **3 s.h.**
Studies first-order differential equations, linear differential equations of higher order, and systems of differential equations. Prerequisite: MATH 272. Spring, annually.
- MATH 357:** *MODERN GEOMETRY* **3 s.h.**
Develops an axiomatic treatment of Euclidean geometry and introduces topics in non-Euclidean geometry. Focuses on the historical work on the parallel postulate. Emphasizes rigorous proof and logical methods. Prerequisite: MATH 300.
- MATH 360, 460:** *NUMERICAL METHODS IN MATHEMATICS I, II* **3 s.h. each**
Examines types of error, calculus of finite differences, numerical evaluation of integrals, algorithms for the solution of algebraic equations, and systems of algebraic equations with applications to selected problems and computer programming of algorithms. Prerequisite: MATH 271. Spring Semester (360); on demand (460).

- MATH 370:** *INTRODUCTION TO LINEAR ALGEBRA* **3 s.h.**
Introduces systems of linear equations, vector spaces, linear transformations, matrices, determinants, eigen vectors, and eigen values.
Prerequisite: MATH 271.
- MATH 390:** *JUNIOR SEMINAR IN MATHEMATICS* **1 s.h.**
An introduction to the literature in mathematics and mathematics education. Students will read a collection of articles or chapters of books with topics ranging from history, applications, and creativity, to research in mathematics education and nature of mathematics. Students will write short papers providing their reactions and insights about the materials from each reading assignment. Each student is required to choose a topic for the Senior Seminar. Prerequisite: Six hours of 300-level or higher mathematics courses and the consent of the mathematics department chair. Term and frequency as required.
- MATH 421:** *MATHEMATICAL STATISTICS I* **3 s.h.**
Explores basic concepts of elementary probability, probability in finite spaces, conditional probability, independent trials, sophisticated counting, and probability in relation to random variables. Prerequisites: MATH 272 and MATH 300.
- MATH 422:** *MATHEMATICAL STATISTICS II* **3 s.h.**
Analyzes mathematical expectation, discrete and continuous random variables, probability densities, sampling distributions, point estimations, interval estimations, tests of hypotheses, regression and correlation, analysis of variation, and moment-generating functions. Prerequisite: MATH 421.
- MATH 451, 452:** *MODERN ALGEBRA I, II* **3 s.h. each**
Introduces groups, rings, integral domains, and fields. Emphasizes rigorous proof and logical methods. Prerequisite: MATH 300. Fall and spring, respectively.
- MATH 454:** *THEORY OF NUMBERS* **3 s.h.**
Examines factorization, congruence, quadratic reciprocity, number theoretic functions, diophantine equations, and continued fractions. Prerequisite: MATH 300.
- MATH 459:** *INTRODUCTION TO COMPLEX VARIABLES* **3 s.h.**
Covers the complex plane, analytic functions, poles, residues, and their applications, including the fundamental theorem of algebra. Prerequisites: MATH 272 and 300.
- MATH 471, 472:** *INTRODUCTION TO REAL ANALYSIS* **3 s.h.**
Covers limits, continuity, differentiability, integrability, and convergence for functions of a real variable and several variables. Prerequisites: MATH 272 and 300.
- MATH 473:** *ELEMENTARY TOPOLOGY* **3 s.h.**
Explores topological spaces, metric spaces, compactness, and connectedness. Prerequisites: MATH 272 and MATH 300.
- MATH 480:** *SPECIAL TOPICS* **3 s.h.**
Offers special topics reflecting the interests of the students. The specific topic to be covered each term will be announced in advance. Prerequisites: MATH 272 and permission of the instructor.
- MATH 490, 491, 492:** *SEMINAR I, II, III* **1 s.h. each**
Individual study under faculty supervision. Prerequisites: 12 hours of 300-level (including MATH 390) or above mathematics courses and written consent of the department chair.
- MATH 495:** *INDUSTRIAL MATHEMATICS WORKSHOP* **3 s.h.**
Serves as the capstone course for students in the Industrial Mathematics Program. Students work to find solutions to problems originating from business, industry, medicine, and government. Requires written and oral presentations. Prerequisites: Completion of MATH 270, 271, 272 (all with C or better), MATH 300, 12 credit hours of mathematics numbered above MATH 300, and permission of instructor.
- MATH 499:** *INDEPENDENT STUDY* **1-3 s.h.**
Individual study under faculty supervision. Prerequisites: 12 hours of math numbered 300 or above and written consent of the department chair.
- CPSC 101** *INTRO TO COMPUTATIONAL SCIENCE* **3 s.h.**
This course is an introduction to the interdisciplinary field of Computational Science, which integrates mathematical modeling and visualization to solve problems in the physical, life, behavioral, and social sciences. Students will acquire skills in the development of scientific knowledge using experimentation with models and simulation of scientific systems. Prerequisite: MATH 171 or permission of the instructor.
- CPSC 201** *SURV COMPUTATIONAL SCI TOOLS* **3 s.h.**
This course presents methods and tools used to implement concepts in mathematics and computational science. The tools will include mathematical and statistical functions such as matrix manipulation and linear algebra, polynomials and interpolation, data analysis and statistics, and optimization. This course will prepare students for further work in mathematics and computational science. Prerequisite: MATH 171. Each semester.
- CPSC 301** *ADV COMPUTATIONAL SCIENCE* **3 s.h.**
This course combines a formal presentation of classical methods of design optimization with detailed instruction in the application of these methods using software tools. It introduces students to the symbolic, numerical, and graphic features of these software tools and integrates this powerful combination in the translation of many algorithms into applied optimization techniques with animation. Prerequisite: MATH 260 or MATH 270
- CPSC 490** *PROJECTS COMPUTATIONAL SCIENCE* **3 s.h.**
This course applies computational science methods and tools to real-world applications in a semester-long project in the student's major field of study. This is the capstone course in computational science. Prerequisite: CPSC 301

Military Science-ROTC

Army Reserve Officers' Training Program and Minor in Leadership-Military Science Track, LTC Jeffrey Metzger, Program Director

G21 Becker Hall

Telephone: 814-393-2527

E-mail address: lfagen@clarion.edu

Website: www.artsci.clarion.edu/rotc

Professor: LTC Jeffrey Metzger

Assistant Professor: ILT Lawrence Fagen

Clarion University, in partnership with the Military Science Department at Indiana University of Pennsylvania (IUP), offers qualified students the opportunity to earn a commission as an officer in the U.S. Army. Students who complete both the Basic Course program and the Advanced Course program receive a minor in leadership-military science track from Clarion University. Students who complete the Basic Course program (or have validated it), the Advanced Course program, and the **ROTC Leadership Development and Assessment Course** receive a commission as an officer in the U.S. Army. The ROTC program and the minor provide leadership training that students can apply throughout their careers, be they in business, industry, technology, education, the physical sciences, or the humanities.

The ROTC program and the minor are divided into two phases: the Basic Course (freshman and sophomore years) and the Advanced Course (junior and senior years).

Students who enroll in the ROTC program have the following benefits:

- ROTC offers a comprehensive academic program in military leadership and teaches practical skills such as self-defense, adventure training, rappelling, marksmanship, orienteering, and first aid techniques.
- The end-state of completing both the Basic Course ROTC Program (MS 110, MS 112, MS 201, and MS 202) and the Advanced Course ROTC program (MS 301, MS 302, MS 401, and MS 402) results in receiving a minor in leadership-military science track.

- Equipment, ROTC textbooks, and uniforms are issued, without cost, to enrolled students.
- Students enrolled in the Basic Course (MS 110, MS 112, MS 201, and MS 202) may become eligible for full-tuition scholarships and enrollment in the ROTC Advanced Course.
- Students formally enrolled in the Advanced Course (MS 301, MS 302, MS 401, and MS 402) receive a cash stipend (\$300-\$500) each month for 10 months during the academic year and receive \$900 each year for books.
- Students who complete the advanced course and graduate from the university receive commissions as second lieutenants and serve in one of the three army components: Active Army, National Guard, or Army Reserve.

ROTC/Minor in Leadership-Military Science Track Basic Course Program

The first two years of military science (MS 110, 112, 201, and 202) provide a background of the historical role of military forces as well as current national military objectives. In addition, students develop basic leadership skills in problem solving and decision making and learn survival techniques, map reading, self-defense, rappelling, and marksmanship. **Participants of the basic course incur no commitment to enroll in the ROTC Advanced Course and incur no obligation for military service. Students may enroll or withdraw from any of the four courses in the ROTC Basic Course under the same provisions and in the same manner as the other academic courses at Clarion.** Veterans of armed forces, junior ROTC and civil air patrol graduates, and students who complete the ROTC Basic Camp at Ft. Knox, Ky., may receive exemption from the ROTC Basic Course if approved by the professor of military science but they will not automatically receive academic credit for the course.

Required courses: Four (all courses include concurrent labs)

MS 110: Introduction to Military Science

MS 112: Fundamentals of Military Science

MS 201: Fundamental Tactical Operations and Leadership Techniques

MS 202: National Security and Fundamentals of Military Topography

ROTC Basic Courses

MS 110: INTRODUCTION TO MILITARY SCIENCE

2 s.h.

Surveys the organization of the U.S. Army and the role of the military in today's society, emphasizing the customs and traditions of the army and the fundamentals of leadership. Students study U.S. Army values and ethics and gain an appreciation for land navigation, the army's fitness ethos, and military bearing. Leadership labs reinforce classroom instruction.

MS 112: FUNDAMENTALS OF MILITARY SCIENCE

2 s.h.

Explores progressively, concepts that must be applied by the officer corps of the U.S. Army. Students learn basic soldier skills and leadership techniques while studying the institutional values and procedures that define the professional Army ethic.

MS 201: FUNDAMENTAL TACTICAL OPERATIONS AND LEADERSHIP TECHNIQUES

2 s.h.

Provides practical application of fundamental leadership techniques in preparation for the Advanced Course of military science and future service as an officer in the U.S. Army. Students learn oral and written communication skills and leadership fundamentals in the classroom and practice them at leadership labs. Curriculum and training goal is to enhance supervisory skills that can be applied in management positions in civilian or military careers. Focuses on individual leadership development and small group leadership techniques used to train and motivate teams within larger organizations.

MS 202: NATIONAL SECURITY AND FUNDAMENTALS OF MILITARY TOPOGRAPHY**2 s.h.**

Studies military security concepts, policies, and the military decision-making process with emphasis on resources and economic factors. Fundamentals of military topography, including use of military maps to determine topographic features to conduct land navigation and to perform terrain analysis, are covered.

ROTC Advanced Course Program

(requires ROTC Basic Course validation)

To validate the ROTC Basic Course, a student must meet one of the following criteria:

- Complete MS 110, 112, 201, and 202
- Have served previously on active duty in the armed forces and received an honorable discharge
- Currently serve in the National Guard or Reserve and have completed basic training
- Have completed three or four continuous years of an accredited Junior ROTC or Civil Air Patrol program
- Complete the ROTC Leader's Training Course during the summer between their sophomore and junior years. *This option makes the ROTC program available to students with no previous military experience.*

Qualified students complete the ROTC Advanced Course as they fulfill the requirements for their undergraduate degree from Clarion University. Enrollment occurs in Fall of the junior year and, in addition to attending physical fitness training three times a week, students attend one seminar and one lab per week at Clarion Campus. Students who pursue graduate degrees at Clarion can also apply for the program as long as the graduate program is at least four semesters long. Students who complete the ROTC program can earn a commission as a second lieutenant and receive placement in

one of 17 professional officer specialties in the U.S. Army, including military intelligence, military police, signal, medical service, and the corps of engineers. To learn more about the program, go to the Clarion Army ROTC Website at www.clarion.edu/rotc.

Four military science courses taken over two years (MSLC 301, 302, 401, and 402) plus attendance at the ROTC Leadership Development and Assessment Course comprise the ROTC Advanced Course and lead to a commission as an officer in the U.S. Army. To be eligible to enroll in the Advanced Course, a student must validate the ROTC Basic Course and meet these criteria: be a citizen of the United States, be physically fit and pass a physical examination, be an enrolled academic junior with at least a 2.0 QPA, be not less than 17 years of age but less than 30 by the anticipated graduation date, and be accepted by the professor of military science.

Required courses: Five (4 include concurrent labs)

MS 301: Leadership and Modern Learning

MS 302: Study of Advanced Leadership Planning and Execution of Modern Combat Operations

MS 401: Management of the Military Complex

MS 402: Seminar in Military Management and Analysis

Summer: ROTC Leadership Development and Assessment Course (LDAC) five weeks in summer

ROTC Advanced Courses**MS 301: LEADERSHIP AND MODERN LEARNING****3 s.h.**

Classroom instruction and case studies build leadership competencies and military skills in preparation for future responsibilities as army officers. Students learn the principles of war, decision-making processes, planning models, risk assessment, the roles and actions of leaders, and organizational communications. Students may not enroll in this course until they have validated the ROTC Basic Course and have been accepted by the professor of military science. By the end of the course, students must agree in writing to complete the ROTC Advanced Course, graduate on time, and accept a commission as an officer. (3 semester hours plus weekly lab)

MS 302: STUDY OF ADVANCED PLANNING AND EXECUTION OF MODERN COMBAT OPERATIONS**3 s.h.**

Classroom instruction and case studies build upon the leadership competencies and military skills attained in MLC 301 in preparation for future responsibilities as an officer leading small units. Cadets study planning and execution of small unit operations, individual and team development, and the army as a professional career. Prerequisite: MS 301. (3 semester hours plus weekly lab)

MS 401: MANAGEMENT OF THE MILITARY COMPLEX**3 s.h.**

Begins the transition from cadet to lieutenant. Cadets study the army staff organization, functions, and processes, as well as counseling responsibilities and methods. Cadets learn how officers recognize and foster an ethical command climate and meet moral obligations as they complete military requirements. Prerequisites: MS 301 and 302. (3 semester hours plus weekly lab)

MS 402: SEMINAR IN MILITARY MANAGEMENT AND ANALYSIS**3 s.h.**

Prepares cadets to accept a commission as an officer and begin service in the army. Cadets study the legal aspects of decision-making and leadership, the organization of the National Command Authority, and the organization of army units from tactical to strategic level. The final block of instruction prepares cadets to report to their new duty stations and assume duty as a platoon leader. Prerequisites: MS 301, 302, and 401, in that order. (3 semester hours plus weekly lab)

LEADERSHIP LABORATORY (concurrent with class meetings)

Students participate in a practical application of the leadership principles, individual techniques, and small unit tactics they studied in the classroom. Concurrently scheduled in conjunction with all military science courses, the leadership laboratory offers practical challenges, both physical and mental, and develops teamwork, camaraderie, and leadership.

ROTC LEADER'S TRAINING COURSE (28 days in length during the summer)

Students who did not complete or validate the ROTC Basic Course but who desire to enroll in the Advanced Course may apply to attend the ROTC Leader's Training Course (LTC) at Fort Knox, Ky. The LTC compresses the concepts normally taught during the Basic Course and makes the student eligible to compete for an ROTC scholarship. Cadets receive \$700 for attending, as well as lodging, subsistence, uniforms, medical care, and reimbursement for travel. Call 814-393-2527 for more information.

ROTC LEADERSHIP DEVELOPMENT AND ASSESSMENT COURSE (33 days in length during the summer)

Advanced Course cadets must complete ROTC Leadership Development and Assessment Course (LDAC) at Fort Lewis, Wash., before they graduate and receive a commission as an army officer. Cadets normally attend LDAC during the summer between their junior and senior years. LDAC familiarizes cadets with the basic branches of the army and affords the opportunity to practice the concepts they learned during the preceding academic year. Cadets receive \$700 for attending, as well as lodging, subsistence, uniforms, medical care, and reimbursement for travel.

Program Benefits

ROTC offers a comprehensive academic program in military leadership, adventure training, rappelling, marksmanship, land navigation, and first aid techniques. The Military Science Department provides equipment, ROTC textbooks, and uniforms without cost to enrolled students. Students enrolled in the Advanced Course receive a cash stipend (\$300-\$500 each month) for 10 months during the academic year and receive \$900 each year for books. Students who complete the Advanced Course and graduate from the university receive commissions as second lieutenants in the active army, national guard, or army reserve.

Modern Languages and Cultures**Department of Modern Languages and Cultures,
Yun Shao, Ph.D., Chair**

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Associate Professors: E. Donato, K. O'Donnell, terHorst

Assistant Professor: Shao

Students who want to enhance their marketability upon graduation should learn a foreign language and become familiar with other world cultures. The study of languages and the development of cross-cultural understanding transform students into more enlightened, culturally sensitive citizens who can better perform in the global community and the world marketplace. To ensure Clarion University graduates are prepared for today's competitive job market, the Department of Modern Languages and Cultures offers the following courses and programs:

- B.A. in French or Spanish
- Minor in French, German, and Spanish
- B.S. in French or Spanish Education for students who intend to teach
- Russian language classes offered via distance education in partnership with Slippery Rock University and Edinboro University
- Courses that fulfill foreign language, general education, or values flag requirements

We recommend students opt for a double major or a minor, combining two languages, or a language with other fields,

Scholarships

All students, to include those who have completed the ROTC Leader's Training Course and graduate students, may apply for one- to four-year scholarships through ROTC. To be fully eligible, applicants must meet these criteria: 2.5 QPA, full-time student, U.S. citizen, physically qualified, and administratively qualified. ROTC scholarships provide these benefits for each year the scholarship is in effect: full tuition, \$900 for books, and \$300-\$500 per month for 10 months of the school year. Call 814-393-2527 for application instructions.

such as business, communication, fine arts, the sciences, and the humanities. Recent graduates of the program have found employment as teachers throughout the nation. Others have gone to graduate school, or are pursuing careers with international corporations, the government, the military, or the foreign service.

Unique features of the program include:

- Competent and dedicated faculty—well-trained professionals who are near-native speakers of the language they teach, or have studied and lived extensively in countries where it is spoken. All are highly dedicated teachers who are on the cutting edge of foreign language pedagogy, and whose research interests are relevant to, and enhance their teaching.
- Low student-faculty ratio allows faculty to be accessible to students and to give them individual attention.
- Language center offers students the opportunity to practice their aural/oral skills, and to have access to computer-enhanced and Internet-based activities. An extensive video library is available to students, either as support to courses, or for personal enrichment.
- Overseas travel and study abroad programs for one summer, one semester, or an academic year are available for students of French, German, or Spanish.
- Language clubs provide many special social and cultural events, including films, conversation and game nights, guest speakers, and field trips.
- National language honorary society, Alpha Mu Gamma, initiates outstanding language students each year.

FRENCH, B.A. 42 credits
Required: FR 251, 252 (or 250*), 281, or 282, 301, 341, 342, and 12 additional credits from courses numbered above 252 excluding courses taught in English. In addition to these 30 credits of French, ENG 262; and nine additional credits in French, geography, and history, and/or ENG 380/ANTH 380, and/or other courses by advisement are required.

SPANISH, B.A. 42 credits
Required: SPAN 251, 252 (or 250*), 280, 281, 282, 301, and 18 additional credits from courses numbered 253-499 excluding courses taught in English. In addition to these 30 credits of Spanish, ENG 262, and nine additional credits in Iberian and/or Latin American geography and history, and/or ENG 457 and 458 and/or other courses by advisement are required.

SECONDARY EDUCATION, B.S.ED.

Certification for grades K-12, French (see under Secondary Education French), page 158.

Certification for grades K-12, Spanish (see under Secondary Education Spanish), page 158.

FRENCH, GERMAN, OR SPANISH, MINOR 21 credits
Required in either French, German, or Spanish: Credits to be divided among nine required credits (FR/GER/SPAN 152, 250, 251, and 252), nine credits of 200-level courses, and three credits of 300-level courses.

FILM STUDIES, MINOR 18 credits
 Offering students an opportunity to study film from various points of view ranging from the aesthetic approach to an investigation of film's philosophical or sociological content. Gives students the opportunity to study film critically and to have a hands-on experience in film making.

French Courses

In addition to courses listed below, students of French have an opportunity to study for a summer, a term, or an entire academic year in France and/or Canada. An opportunity to participate in a program of international business internships is made available to qualified students.

- FR 101: SPECIAL TOPICS: THE EUROPEAN MIND** **3 s.h.**
 Experts on individual countries cover historical and contemporary developments on the European intellectual scene with regard to their relevance for the present American student generation. The special subject is announced at pre-registration. Open to all students, and may be taken up to three times for credit, provided that different topics are offered. Course conducted in English. No prerequisite.
- FR 103: FRENCH CIVILIZATION** **3 s.h.**
 Introduces contemporary French society, enlightened by glimpses at France's rich history. A study of geography, politics, family life, immigration, art, music, literature, the current status of French feminism, and French media will help students define and understand the multiple aspects of French identity. Course conducted in English. No prerequisite.
- FR 109: FRENCH LITERATURE IN TRANSLATION** **3 s.h.**
 A study of representative French literary works emphasizing the characters and ideas that have influenced both French literature and literature of other countries. Course conducted in English. No prerequisite. Fall, annually.
- FR 140: FRENCH FILM** **3 s.h.**
 Surveys major French films with English subtitles, and provides an introduction to trends of French cinema. Emphasizes cultural differences between Francophone and Anglo-American cultures as revealed through film. Course conducted in English. No prerequisite. Fall, annually.
- FR 150: INTENSIVE ELEMENTARY FRENCH*** **6 s.h.**
 Equivalent to FR 151 and 152 combined. Fall, annually.
- FR 151: ELEMENTARY FRENCH I (FRENCH I)** **3 s.h.**
 Introduces the French language, emphasizing all language skills — listening, speaking, reading, and writing. Each semester.
- FR 152: ELEMENTARY FRENCH II (FRENCH II)** **3 s.h.**
 Continuation of FR 151. Prerequisite: FR 151 or equivalent. Each semester.
- FR 153: ELEMENTARY FRENCH CONVERSATION** **3 s.h.**
 Conversational practice emphasizing communication skills. Designed for students who want to increase their aural-oral proficiency. May be taken concurrently with FR 251. Prerequisite: FR 152 or equivalent.
- FR 250: INTENSIVE INTERMEDIATE FRENCH*** **6 s.h.**
 Equivalent to FR 251 and 252 combined. Prerequisite: FR 150 or FR 152, or equivalent. Spring, annually.
- FR 251: INTERMEDIATE FRENCH I (FRENCH III)** **3 s.h.**
 Continuation of FR 152, with greater emphasis on reading and writing. Prerequisite: FR 150 or 152, or equivalent. Fall, annually.
- FR 252: INTERMEDIATE FRENCH II (FRENCH IV)** **3 s.h.**
 Continuation of FR 251. Prerequisite: FR 251 or equivalent. Spring, annually.
- FR 253: COMMERCIAL FRENCH** **3 s.h.**
 Study of the language needed to conduct common business transactions, and discuss financial and technological matters in French. Includes writing of business letters and reports in French. Emphasizes cultural differences between French and American business practices. Prerequisite: FR 250 or 252, or equivalent.
- FR 257: FRENCH LINGUISTIC AND CULTURAL IMMERSION** **3 s.h.**
 This course consists of a week of intensive instruction in French language and culture, prior to a two-week trip to France. During this period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic and literary importance of the sites visited, and conduct as much of their daily routines in French as possible.
- FR 260: THE FRENCH SHORT STORY** **3 s.h.**
 Study of 19th- and 20th-century French short stories. All readings, discussions, and assignments in French. Required for French and French education majors. Prerequisite: FR 250 or 252, or equivalent.

- FR 265:** *INTERMEDIATE FRENCH CONVERSATION* **3 s.h.**
Practice creative language use in conversation to develop oral proficiency. May be substituted for FR 252, with permission of instructor. Required for French and French education majors. Prerequisite: FR 251 or equivalent.
- FR 270:** *INTRODUCTION TO FRENCH PHONETICS AND PRONUNCIATION* **3 s.h.**
Introduces the French phonetic system, including the study of phonemes, intonation, stress, and rhythm. Provides intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduces corrective phonetics. Recommended for French majors. Required for French education majors. Prerequisite: FR 252 or equivalent. Three-year cycle.
- FR 281:** *FRENCH FOR ORAL AND WRITTEN PROFICIENCY I* **3 s.h.**
Intensive review of French grammar, designed to increase students' proficiency in all language skills. Emphasizes college-level reading and writing. Readings cover a range of topics including French culture, history, current affairs, and literature. Students will be exposed to a variety of literary and compositional styles. Required for French and French education majors. Prerequisite: FR 250 or 252, or equivalent.
- FR 282:** *FRENCH FOR ORAL AND WRITTEN PROFICIENCY II* **3 s.h.**
Continuation of FR 281. Required for French and French education majors. Prerequisite: FR 250 or 252 or equivalent, or permission of instructor.
- FR 301:** *FRENCH CIVILIZATION* **3 s.h.**
Introduces contemporary French society, enlightened by glimpses at France's rich history. A study of geography, politics, family life, immigration, art, music, literature, the current status of French feminism, and French media will help students define and understand the multiple aspects of French identity. Required for French and French education majors. Course conducted in French. Prerequisite: FR 250 or 252, or equivalent. Spring, two-year cycle.
- FR 302:** *TOPICS IN FRENCH LITERATURE AND CULTURE* **3 s.h.**
In-depth examination of a French literary movement, literary theme or cultural topic. This course may be taken up to three times for credit, provided that different topics are offered. No prerequisite. Course taught in English. Not eligible for French major or minor requirements.
- FR 340:** *FRENCH FILM* **3 s.h.**
Surveys major French films with English subtitles, and provides an introduction to trends of French cinema. Emphasizes cultural differences between Francophone and Anglo-American cultures as revealed through film. Lectures in English; assignments in French. Prerequisite: FR 252 or permission of instructor.
- FR 341:** *SURVEY OF FRENCH LITERATURE FROM THE MIDDLE AGES TO THE 17TH CENTURY* **3 s.h.**
Survey and discussion of the main trends of French thought and literary expression from the Middle Ages to the 17th Century. Emphasizes the emergence and evolution of literary genres. Prerequisite: FR 250 or 252 or permission of instructor. Fall, odd-numbered years.
- FR 342:** *SURVEY OF FRENCH LITERATURE FROM THE 18TH CENTURY TO THE PRESENT* **3 s.h.**
Survey and discussion of the main trends of French thought and literary expression from the Age of Enlightenment to postmodernity. Emphasizes the concepts of experimentation with and subversion of the established literary genres. Prerequisite: FR 250 or 252 or permission of instructor. Spring, even-numbered years.
- FR 353:** *DEVELOPMENT OF FRENCH DRAMA* **3 s.h.**
Examines development of French drama from the Middle Ages to the 20th century. Course conducted in French. Prerequisite: FR 252 or permission of instructor.
- FR 354:** *DEVELOPMENT OF THE FRENCH NOVEL* **3 s.h.**
Study of the French novel, with selections from major works in the genre. Course conducted in French. Required for French and French education majors. Prerequisite: FR 252 or permission of instructor.
- FR 356:** *DEVELOPMENT OF FRENCH POETRY* **3 s.h.**
Study of French poetry from the Middle Ages to modern times. Introduces poetic form, from the ballad to free verse. Course conducted in French. Prerequisite: FR 252 or permission of instructor.
- FR 358:** *FRENCH THINKERS* **3 s.h.**
Study of major French thinkers from the Middle Ages to the 20th century. Course conducted in French. Prerequisite: FR 252 or permission of instructor.
- FR 360:** *FRENCH CANADIAN WRITERS* **3 s.h.**
Study of the major trends in French Canadian theatre, prose, and poetry. Course conducted in French. Prerequisite: FR 252 or permission of instructor.
- FR 361:** *BLACK WRITERS IN FRENCH LITERATURE* **3 s.h.**
Study of the major trends in Francophone African literature. Includes selections from among the works of Jacques Roumain, Sembene Ousmane, Amadou Kourouma, Francis Bebey, Ferdinand Oyono, Leopold Sedar Senghor, Aimé Césaire, Leo Damas, Bernard Dadié, and others. Lectures conducted in English; assignments in French for French majors or minors, in English for other students. Prerequisite: FR 252 or permission of instructor. Spring, annually.
- FR 451:** *SUPERVISED READINGS IN FRENCH LITERATURE* **3 s.h.**
Selected readings determined in relation to the needs and interests of the individual student. Prerequisite: FR 252 or permission of instructor.
- FR 501:** *SPECIAL TOPICS IN FRENCH LITERATURE AND CULTURE* **3 s.h.**
In-depth examination of contemporary French and Francophone literary and cultural issues. May be taken up to three times for credit, provided that different topics are offered. Course taught in French.
- FR 551:** *ADVANCED SUPERVISED READINGS IN FRENCH LITERATURE* **3 s.h.**
Selected readings determined by the needs and interests of the individual student.

FR 557: ADVANCED FRENCH LINGUISTIC AND CULTURAL IMMERSION 3 s.h.

This course consists of two weeks of intensive online instruction on French culture and civilization, prior to a two week trip to France. During this “immersion” period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic and literary importance of the sites visited, and conduct as much of their daily routines in French as possible. Course offered to graduate students.

**As a general policy, students who have received credit for a 151- or 251-level course in French, German, or Spanish are not advised to take the respective 150- or 250- courses. If students in this situation do decide to take these courses, however, they may receive only three credits for them, i.e., the three credits they would normally receive for a 152- or 252-level course.*

German Courses

In addition to courses listed below, students of German have an opportunity to study for a summer, a term, or an entire year in Germany and/or Austria. An opportunity to participate in a program of paid and unpaid internships in Germany and Switzerland is available for qualified students.

GER 101: SPECIAL TOPICS: THE EUROPEAN MIND 3 s.h.

Experts on individual European countries examine historical and contemporary developments on the European intellectual scene with regard to their relevance for the present American student generation. The special subject is announced at pre-registration. Open to all students, and may be taken up to three times for credit, provided that different topics are covered. Conducted in English. No prerequisite.

GER 103: GERMAN CIVILIZATION AND CULTURE 3 s.h.

Introduces the geography, history, government, literature, and arts of German-speaking countries (Germany, Switzerland and Austria). Emphasizes comparison of the cultures and values of German societies to those of Anglo-American society. Conducted in English. No prerequisite.

GER 109: GERMAN LITERATURE IN TRANSLATION 3 s.h.

Examines representative German literary works, emphasizing the characters and ideas that have influenced both German literature and the literature of other countries. Conducted in English. No prerequisite.

GER 140: GERMAN FILM 3 s.h.

Surveys major German films with English subtitles. Through film, students learn about cultural and social changes in 20th-century German-speaking countries and become aware of differences between German and Anglo-American cultures. Conducted in English. No prerequisite.

GER 150: INTENSIVE ELEMENTARY GERMAN* 6 s.h.

Equivalent to GER 151 and GER 152.

GER 151: ELEMENTARY GERMAN I (GERMAN I) 3 s.h.

Introduces the German language, emphasizing all language skills—listening, speaking, reading, and writing. Fall, annually.

GER 152: ELEMENTARY GERMAN II (GERMAN II) 3 s.h.

Continuation of GER 151. Prerequisite: GER 151 or equivalent. Spring, annually.

GER 250: INTENSIVE INTERMEDIATE GERMAN* 6 s.h.

Equivalent to GER 251 and 252 combined. Prerequisite: GER 150 or 152, or equivalent.

GER 251: INTERMEDIATE GERMAN I (GERMAN III) 3 s.h.

Continuation of GER 152, with greater emphasis on reading and writing. Prerequisite: GER 150 or 152, or equivalent. Fall, annually.

GER 252: INTERMEDIATE GERMAN II (GERMAN IV) 3 s.h.

Continuation of GER 251. Prerequisite: GER 251 or equivalent. Spring, annually.

GER 254: COMMERCIAL GERMAN 3 s.h.

A study of the language needed to conduct common business transactions and discuss financial and technological matters in German. Requires writing of business letters and reports in German. Emphasizes cultural differences between German and American business practices. Prerequisite: GER 250 or 252, or equivalent.

GER 255: GERMAN CIVILIZATION I 3 s.h.

Introduces German society, enlightened by glimpses at Germany’s rich history. A study of German geography, politics, family life, immigration, art, education, music, literature, and media helps students define and understand the multiple aspects of German identity. Conducted in German. Prerequisite: GER 250 or 252, or equivalent.

GER 256: GERMAN CIVILIZATION II 3 s.h.

A complement to German 255, with greater emphasis on Germany’s past. Prerequisite: GER 250 or 252, or equivalent.

GER 257: GERMAN IMMERSION 3 s.h.

Offered in Germany, the course introduces students to German culture, including aspects of everyday life in Germany, and facilitates understanding of Germany’s history and civilization through study of important monuments and urban design. Prerequisite: GER 252, or permission of instructor.

GER 260: THE GERMAN SHORT STORY 3 s.h.

Study of German short stories from the turn of the 19th century to the present. All readings, discussions, and assignments in German. Prerequisite: GER 250 or 252, or equivalent.

GER 265: INTERMEDIATE GERMAN CONVERSATION 3 s.h.

Practice creative language use in conversation to develop oral proficiency. May be substituted for GER 252 with permission of instructor. Prerequisite: GER 251 or equivalent.

GER 270: INTRODUCTION TO GERMAN PHONETICS AND PRONUNCIATION 3 s.h.

Introduces the German phonetic system, including the study of phonemes, intonation, stress, and rhythm. Intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice in diction. Introduces corrective phonetics. Prerequisite: GER 250 or 252, or equivalent.

- GER 302: TOPICS IN GERMAN LITERATURE AND CULTURE** 3 s.h.
In-depth examination of one or more German literary movements, literary themes, or cultural topics. The course may be taken up to three times for credit, provided that different topics are offered. Prerequisite: Sophomore standing. Course taught in English. Not eligible for German major or minor requirements.
- GER 307: GERMAN CONVERSATION AND COMPOSITION I** 3 s.h.
Develops students' abilities in listening, speaking, and writing German. The course emphasizes a variety of issues relating to modern Germany. Prerequisite: GER 250 or 252.
- GER 308: GERMAN CONVERSATION AND COMPOSITION II** 3 s.h.
Continuation of German 307. Prerequisite: GER 307, or permission of instructor.
- GER 340: GERMAN FILM** 3 s.h.
Surveys major German films with English subtitles. Through film, students learn about cultural and social changes in 20th-century German-speaking countries and become aware of differences between German and Anglo-American cultures. Lectures in English; assignments in German. Prerequisite: GER 250 or 252, or equivalent.
- GER 341: SURVEY OF GERMAN LITERATURE FROM THE MIDDLE AGES TO THE 18TH CENTURY** 3 s.h.
Survey and discussion of the main trends of German thought and literary expression from the Middle Ages through the Classical period. The course emphasizes the emergence and evolution of literary genres. Prerequisite: GER 250 or 252.
- GER 342: SURVEY OF GERMAN LITERATURE FROM THE 19TH CENTURY TO THE PRESENT** 3 s.h.
Survey and discussion of the main trends of German thought and literary expression from the German Romanticism to Postmodernity. The course emphasizes the concepts of experimentation with and subversion of the established literary genres. Prerequisite: GER 250 or 252.
- GER 353: MODERN GERMAN DRAMA** 3 s.h.
German drama from the middle of the 19th century to the present, covering representative writers of the realist, naturalist, and expressionist movements, as well as selected contemporary writers. Prerequisite: GER 250 or 252 or permission of instructor.
- GER 355: GERMAN ROMANTICISM** 3 s.h.
Study of German Romantic literature and philosophy, with consideration of their influences on American Romanticism. Prerequisite: GER 250 or 252 or permission of instructor.
- GER 358: CLASSICAL GERMAN LITERATURE** 3 s.h.
Study of major authors and representative works from the golden age of German literature. Prerequisite: GER 250 or 252 or permission of instructor.
- GER 451: SUPERVISED READINGS IN GERMAN LITERATURE** 3 s.h.
Selected readings determined by the needs and interests of the individual student. Prerequisite: GER 250 or 252 or permission of instructor.
- GER 501: SPECIAL TOPICS IN GERMAN LITERATURE AND CULTURE** 3 s.h.
In-depth examination of contemporary German literary and cultural issues. May be taken up to three times for credit, provided that different topics are offered. Course taught in German.
- GER 551: ADVANCED SUPERVISED READINGS IN GERMAN LITERATURE** 3 s.h.
Selected readings determined by the needs and interests of the individual student.
- GER 557: ADVANCED GERMAN LINGUISTIC AND CULTURAL IMMERSION** 3 s.h.
This course consists of two weeks of intensive online instruction on German culture and civilization, prior to a two week trip to a German-speaking country. During this "immersion" period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic and literary importance of the sites visited, and conduct as much of their daily routines in German as possible. Course offered to graduate students.

**As a general policy, students who have received credit for a 151- or 251-level course in French, German, or Spanish are not advised to take the respective 150- or 250-level courses. If students in this situation do decide to take these courses, however, they may receive only three credits for them, i.e., the three credits they would normally receive for a 152- or 252-level course.*

Spanish Courses

In addition to the courses listed below, students of Spanish have an opportunity to study for a summer, a term, or an entire academic year in a Spanish-speaking country.

- SPAN 101: SPECIAL TOPICS: THE EUROPEAN MIND** 3 s.h.
Experts on individual countries cover historical and contemporary developments on the European intellectual scene with regard to their relevance for the present American student generation. The special subject is announced at pre-registration. Open to all students, and may be taken up to three times for credit, provided that different topics are offered. Course conducted in English. No prerequisite.
- SPAN 103: HISPANIC CIVILIZATION AND CULTURE** 3 s.h.
Taught in English. Provides students with a basic knowledge of Hispanic culture, history and civilization. Emphasizes comparing the cultures and values of Hispanic societies among themselves as well as to those of Anglo-American society. No prerequisite.
- SPAN 109: SPANISH LITERATURE IN TRANSLATION** 3 s.h.
A study of representative Hispanic literary works emphasizing themes relevant to all cultures. Conducted in English. No knowledge of Spanish required.
- SPAN 140: HISPANIC FILM** 3 s.h.
This course, taught in English, will examine major Spanish and Latin American films with English subtitles. It offers a special and important perspective to approach the contemporary history and culture of Hispanic countries. Students are encouraged to develop an awareness of differences between Hispanic and Anglo-American cultures. Lectures and assignments in English. No prerequisite.

- SPAN 150:** *INTENSIVE ELEMENTARY SPANISH** **6 s.h.**
Equivalent to SPAN 151 and 152 combined. As needed.
- SPAN 151:** *ELEMENTARY SPANISH (SPANISH I)* **3 s.h.**
Introduces Spanish language, emphasizing all language skills: listening, speaking, reading, and writing. Fall annually.
- SPAN 152:** *ELEMENTARY SPANISH II (SPANISH II)* **3 s.h.**
Continuation of SPAN I. Prerequisite: SPAN 151 or satisfactory placement test score.
- SPAN 250:** *INTENSIVE INTERMEDIATE SPANISH*** **6 s.h.**
Equivalent to SPAN 251 and 252 combined. Prerequisite: SPAN 150 or SPAN 152, or satisfactory placement test score. As needed.
- SPAN 251:** *SPANISH III (INTERMEDIATE I)* **3 s.h.**
Systematic review of basic grammar: graded readings, conversation, translation, and composition based on selected topics. Prerequisite: SPAN 150 or 152, or satisfactory placement test score. Fall, annually.
- SPAN 252:** *SPANISH IV (INTERMEDIATE II)* **3 s.h.**
Continuation of SPAN 251. Prerequisite: SPAN 251 or satisfactory placement test score. Spring, annually.
- SPAN 253:** *COMMERCIAL SPANISH* **3 s.h.**
A study of commercial terminology and style, with extensive practice in the writing of business letters of various kinds. Prerequisite: SPAN 250 or 252, or equivalent.
- SPAN 260:** *THE HISPANIC SHORT STORY* **3 s.h.**
A study of representative short stories by contemporary Spanish and Latin American writers. All readings and discussions in Spanish. Prerequisite: Span 252.
- SPAN 265:** *INTERMEDIATE SPANISH CONVERSATION* **3 s.h.**
Practice creative language use in conversation to develop oral proficiency for everyday situations and travel. May be substituted for SPAN 252, with permission of instructor. Required for Spanish and Spanish education majors. Prerequisite: SPAN 251 or equivalent.
- SPAN 270:** *INTRODUCTION TO SPANISH PHONETICS AND PRONUNCIATION* **3 s.h.**
Introduces the Spanish phonetic system, including the study of phonemes, intonation, stress, and rhythm. Includes intensive aural/oral training through phonetic dictation with transcription in the International Phonetic Alphabet and practice diction. Introduces corrective phonetics. Required for majors. Required for Spanish education majors. Prerequisite: SPAN 252 or equivalent.
- SPAN 280:** *INTENSIVE ADVANCED SPANISH GRAMMAR AND COMPOSITION* **6 s.h.**
Equivalent to SPAN 281 and 282 combined. Meets five days a week. Prerequisites: SPAN 250 or 252, or equivalent. As needed.
- SPAN 281:** *SPANISH FOR ORAL AND WRITTEN PROFICIENCY I* **3 s.h.**
Intensive review of Spanish grammar, designed to increase students' proficiency in all language skills with particular attention to college level reading and writing. Readings cover a range of Hispanic culture, including history, current affairs, and literature. Required for Spanish and Spanish education majors. Prerequisites: SPAN 250 or 252 or equivalent.
- SPAN 282:** *SPANISH FOR ORAL AND WRITTEN PROFICIENCY II* **3 s.h.**
Continuation of SPAN 281. Required for Spanish and Spanish education majors. Prerequisite: SPAN 250, 252 or equivalent, or permission of instructor.
- SPAN 301:** *HISPANIC CIVILIZATION* **3 s.h.**
Introduces Hispanic culture through its geography, art, history, politics, architecture, music and literature. Further develops cultural themes introduced in SPAN 281 and 282. Required for Spanish and Spanish education majors. Prerequisite: SPAN 282 or permission of instructor.
- SPAN 302:** *TOPICS IN HISPANIC LITERATURE AND CULTURE* **3 s.h.**
In-depth examination of one or more Hispanic literary movements, literary themes or cultural topics. No prerequisite. Course taught in English. Not eligible for Spanish minor requirements.
- SPAN 340:** *HISPANIC FILM* **3 s.h.**
This course, taught in Spanish, will examine major Spanish and Latin American films with English subtitles. It offers a special and important perspective to approach the contemporary history and culture of Hispanic countries. Students are encouraged to develop an awareness of differences between Hispanic and Anglo-American cultures. Prerequisite: Spanish 282 or permission of instructor.
- SPAN 344:** *TRANSLATION* **3 s.h.**
Reviews basic translation theory and introduces advanced translation techniques. Includes Spanish to English translation as well as English to Spanish, and also techniques of oral interpretation. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 352:** *READINGS IN SPANISH LITERATURE FROM THE MIDDLE AGES TO THE GOLDEN AGE* **3 s.h.**
Introduces Spanish literature from the 11th to the 17th centuries. Emphasizes the role of Islam, Judaism, and Christianity in the texts of this period, as well as the development of Spain as the most powerful nation in Europe and the New World during this period. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 353:** *READINGS IN SPANISH LITERATURE FROM THE GOLDEN AGE TO THE 20th CENTURY* **3 s.h.**
Surveys readings from the decline of Spain as a world power to its present position as a democracy. Emphasizes the unique role of the Spanish writer as the conscience and consciousness of the nation, as well as the emergence of women writers. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 354:** *THE MODERN SPANISH NOVEL* **3 s.h.**
Examines the development of the novel in Spain during the 19th and 20th centuries, with discussion of Romanticism, Regionalism, Realism, and Naturalism. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 360:** *READINGS IN SPANISH AMERICAN LITERATURE FROM THE PRE-COLONIAL TO THE 19th CENTURY* **3 s.h.**
Surveys literature of Spanish-America from Pre-Columbian times to Romanticism. Emphasizes the clash between the autochthonous and the invading European culture that ultimately led to the formation of the Latin American character. Prerequisite: SPAN 281 or 282 or equivalent.

- SPAN 361:** *SPANISH-AMERICAN LITERATURE FROM MODERNISMO TO THE 20TH CENTURY* **3 s.h.**
Covers the period from beginnings of Modernismo to the writers of the 20th century, emphasizing both prose and poetry. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 362:** *20TH-CENTURY SPANISH-AMERICAN NOVEL* **3 s.h.**
Examines development of the novel in Latin America from the early 20th century to “The Boom.” Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 401:** *SPECIAL TOPICS IN HISPANIC LANGUAGE AND CULTURE* **3 s.h.**
In-depth examination of contemporary Hispanic literature and cultural issues including but not limited to such topics as Hispanic Women Writers, Latino Cultures in the U.S., and Relationships Between Hispanic nations and the U.S. Course is taught in Spanish.
- SPAN 417:** *SPANISH LANGUAGE AND CULTURAL IMMERSION* **3 s.h.**
The course consists of a trip to a Spanish-speaking country for two to five weeks depending on the itinerary planned by the instructor prior to departure (no matter what the length, however it will consist of the usual number of semester hours.) during this period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic, or literary importance of the sites visited, conducting as much of their daily routine in Spanish as possible. Course offered to graduate students and undergraduates.
- SPAN 461:** *SUPERVISED READINGS IN HISPANIC LITERATURE* **3 s.h.**
Selected readings determined by the needs and interests of the individual student. Prerequisite: SPAN 281 or 282 or equivalent.
- SPAN 501:** *SPECIAL TOPICS IN HISPANIC LANGUAGE AND CULTURE* **3 s.h.**
In-depth examination of contemporary Hispanic literature and cultural issues including but not limited to such topics as Hispanic women writers, Latino cultures in the United States, and relationships between Hispanic nations and the United States. Course is taught in Spanish. Course offered to graduate students.
- SPAN 540:** *HISPANIC FILM* **3 s.h.**
This course will examine major Spanish and Latin American films. It offers a special and important perspective to approach the contemporary history and culture of Hispanic countries. Students are encouraged to develop an awareness of differences between Hispanic and Anglo-American cultures. Course is taught in Spanish. Course offered to graduate students.
- SPAN 561:** *SUPERVISED READINGS IN HISPANIC LITERATURE* **3 s.h.**
Selected readings determined by the needs and interests of the individual student.

**As a general policy, students who have received credit for a 151- or 251-level course in French, German, or Spanish are not advised to take the respective 150- or 250-level courses. If students in this situation do decide to take these courses, however, they may receive only three credits for them, i.e., the three credits they would normally receive for a 152- or 252-level course.*

***Staffing factors and student needs will decide whether the department will run the intensive or the three-credit courses.*

Global Understanding Courses

- GU 160/CMST 160:** *INTRODUCTION TO GLOBAL UNDERSTANDING* **3 s.h.**
Introduces students to global perspectives that shape how we facilitate and coordinate interactions with people from different backgrounds through the use of verbal and nonverbal codes.
- GU 340:** *GLOBAL UNDERSTANDING SEMINAR* **3 s.h.**
Capstone course for the Minor in Global Understanding. Interdisciplinary seminar focused on the development of a research project to be implemented during a subsequent approved experience abroad. Students will identify a topic for their research project, develop a well-articulated prospectus and literature survey, and link with and secure the participation of a faculty advisor with whom they will work on this project.
- GU 341:** *GLOBAL UNDERSTANDING RESEARCH PROJECT* **3 s.h.**
Under the supervision of a faculty advisor in their major area of study, students pursue a research project (defined in a proposal written as part of GU 340 – Seminar in Global Understanding) while on an approved experience abroad. The final products of this research project are a paper and oral presentation. Prerequisite: GU 340

**As a general policy, students who have received credit for a 151- or 251-level course in French, German, or Spanish are not advised to take the respective 150- or 250-level courses. If students in this situation do decide to take these courses, however, they may receive only three credits for them, i.e., the three credits they would normally receive for a 152- or 252-level course.*

See statement on Study Abroad-International Education, page 25.

Global Studies Courses

- GS 103:** *ARABIC CIVILIZATION AND CULTURE I* **3 s.h.**
Introduces Arabic society from pre-Islamic times to the 15th Century. Emphasis placed on the birth of Islam and Arabic literature in the context of the history of the Arabic people. Topics to include Arabic contributions to literature, art and science during the Middle Ages. Course taught in English.
- GS 104:** *ARABIC CIVILIZATION AND CULTURE II* **3 s.h.**
Continuation of GS 103: Arabic Civilization and Culture I. Topics covered will include Arabic society from the Western Renaissance to the present times. Emphasis placed on the Crusades, Arabic society within the Ottoman Empire, European colonization after the fall of the Ottoman Empire, birth of the modern Arab States, and Israeli/ Palestinian conflict. Course taught in English. Prerequisite: GS 103.
- GS 151:** *ELEMENTARY ARABIC I* **3 s.h.**
Introduces the Arabic language, emphasizing all language skills—listening, speaking, reading, and writing.
- GS 152:** *ELEMENTARY ARABIC II* **3 s.h.**
Continuation of GS 151: Elementary Arabic I. Prerequisite: GS 151 or placement based on evaluation.

Chinese Course

CHIN 103: CHINESE CIVILIZATION AND CULTURE I **3 s.h.**

Introduces basic facts about Chinese civilization. Topics include Chinese contributions to literature, art, science, and technology of the world. Taught in English.

General Studies Courses

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

GS 109: FOREIGN LITERATURE IN TRANSLATION **3 s.h.**

Offered by the Department of Modern Languages and Cultures, listed as FR 109, GER 109, or SPAN 109.

GS 230: SPECIAL TOPICS : THE EUROPEAN MIND **3 s.h.**

Offered by the Department of Modern Languages and Cultures, listed as FR 101, GER 101, SPAN 101. See course description under appropriate language listings.

College of Arts and Sciences



Music

**Department of Music, Stephen R. Johnson, Ph.D.,
Chair**

221 Marwick Boyd Fine Arts Center
Telephone: 814-393-2287
E-mail address: stjohnson@clarion.edu
Website: www.clarion.edu/music

Professors: Amrod, Register
Associate Professors: Alviani, Johnson, Toney, Wells
Assistant Professors: Teske, Wardlaw
Instructors: Teadt, Reefer

**Bachelor of Science in Education
in Music Education**

See Music Education program description under the College of Education and Human Services, page 168.

MUSIC, MINOR18-21 credits
Required: MUS 111 and 131, plus 12-15 credits from four additional categories. Contact the Department of Music for additional information.

Music Courses

Applied Music

Individual instruction in strings, woodwinds, brass, percussion, piano, and voice. Stresses development of an attitude of artistic maturity on the part of the student and artistic performance at all levels of proficiency. All matriculated music majors must elect applied music credits on their major instrument/voice and participate in weekly studio classes each semester in residence. Admission by audition and permission of instructor and department chair. Admission of non-majors is dependent upon availability of staff. Contact the Department of Music for additional information. Prerequisite: MUS 131 or equivalent background. Course numbers are listed below. 300-, and 400-levels reserved for music majors only.

<i>MUSA 110/210/310/410</i>	<i>APPLIED MUSIC : VIOLIN</i>	<i>1 s.h.</i>
<i>MUSA 111/211/311/411</i>	<i>APPLIED MUSIC : VIOLA</i>	<i>1 s.h.</i>
<i>MUSA 112/212/312/412</i>	<i>APPLIED MUSIC : CELLO</i>	<i>1 s.h.</i>
<i>MUSA 113/213/313/413</i>	<i>APPLIED MUSIC : DOUBLE BASS</i>	<i>1 s.h.</i>
<i>MUSA 114/214/314/414</i>	<i>APPLIED MUSIC : FLUTE</i>	<i>1 s.h.</i>
<i>MUSA 115/215/315/415</i>	<i>APPLIED MUSIC : OBOE</i>	<i>1 s.h.</i>
<i>MUSA 116/216/316/416</i>	<i>APPLIED MUSIC : CLARINET</i>	<i>1 s.h.</i>
<i>MUSA 117/217/317/417</i>	<i>APPLIED MUSIC : SAXOPHONE</i>	<i>1 s.h.</i>
<i>MUSA 118/218/318/418</i>	<i>APPLIED MUSIC : BASSOON</i>	<i>1 s.h.</i>
<i>MUSA 119/219/319/419</i>	<i>APPLIED MUSIC : TRUMPET</i>	<i>1 s.h.</i>
<i>MUSA 120/220/320/420</i>	<i>APPLIED MUSIC : FRENCH HORN</i>	<i>1 s.h.</i>
<i>MUSA 121/221/321/421</i>	<i>APPLIED MUSIC : EUPHONIUM</i>	<i>1 s.h.</i>
<i>MUSA 122/222/322/422</i>	<i>APPLIED MUSIC : TROMBONE</i>	<i>1 s.h.</i>
<i>MUSA 123/223/323/423</i>	<i>APPLIED MUSIC : TUBA</i>	<i>1 s.h.</i>
<i>MUSA 124/224/324/424</i>	<i>APPLIED MUSIC : PERCUSSION</i>	<i>1 s.h.</i>
<i>MUSA 125/225/325/425</i>	<i>APPLIED MUSIC : PIANO</i>	<i>1 s.h.</i>
<i>MUSA 126/226/326/426</i>	<i>APPLIED MUSIC : VOICE</i>	<i>1 s.h.</i>

PERFORMING ORGANIZATIONS: MUSA 130/330-149/349 May be taken for one credit or for no credit. Credits earned may not be counted among the humanities in general education but may be counted under health and personal performance and under free electives. Open to all students; 300-level reserved for music majors only.

<i>MUSA 130/330:</i>	<i>CONCERT CHOIR</i>	<i>0-1 s.h.</i>
<i>MUSA 131/331:</i>	<i>CHAMBER SINGERS</i>	<i>0-1 s.h.</i>
<i>MUSA 135/335:</i>	<i>SYMPHONY ORCHESTRA</i>	<i>0-1 s.h.</i>
<i>MUSA 136/336:</i>	<i>MARCHING BAND</i>	<i>0 1 s.h.</i>
<i>MUSA 137/337:</i>	<i>SYMPHONIC BAND</i>	<i>0-1 s.h.</i>
<i>MUSA 138/338:</i>	<i>WIND ENSEMBLE</i>	<i>0-1 s.h.</i>
<i>MUSA 139/339:</i>	<i>JAZZ BAND</i>	<i>0-1 s.h.</i>
<i>MUSA 142/342:</i>	<i>WOODWIND ENSEMBLE</i>	<i>0-1 s.h.</i>
<i>MUSA 143/343:</i>	<i>BRASS ENSEMBLE</i>	<i>0-1 s.h.</i>
<i>MUSA 144/344:</i>	<i>STRING ENSEMBLE</i>	<i>0-1 s.h.</i>
<i>MUSA 145/345:</i>	<i>PERCUSSION ENSEMBLE</i>	<i>0-1 s.h.</i>
<i>MUSA 149/349:</i>	<i>PIANO ACCOMPANYING/ENSEMBLE</i>	<i>0-1 s.h.</i>

See page 14 for organization descriptions.

MUSA 301: INSTRUMENTAL ENSEMBLE PRACTICUM *0-1 s.h.*

Provides ensemble performance experience for music majors on secondary instruments. Also provides student conductors the opportunity to develop rehearsal technique through experiences directing an ensemble. Prerequisites: At least two of the following: MUS 241, 242, 243, or 245; and MUS 365.

MUSA 302: CHORAL ENSEMBLE PRACTICUM *0-1 s.h.*

Provides ensemble performance experience for music majors with a secondary performance area of voice. Also provides student conductors the opportunity to develop rehearsal technique through experiences directing an ensemble. Prerequisites: MUS 182, MUS 366 to conduct.

MUS 110: APPLIED MUSIC SEMINAR *0 s.h.*

Student recital series satisfies departmental requirement. All music students must elect this course each semester in residence as an extension of their curricular and performance activities. Music majors experience and/or perform music literature of all periods appropriate to their instrument or voice.

MUS 111: INTRODUCTION TO MUSIC *3 s.h.*

Introduces the enjoyment and understanding of music. Uses recordings, concerts, and other media.

MUS 112: INTRODUCTION TO AFRICAN-AMERICAN MUSIC *3 s.h.*

Introduces the enjoyment and understanding of African-American music. Uses audio-visual materials to provide examples of musical styles presented.

- MUS 113: HISTORY OF ROCK MUSIC** **3 s.h.**
 Surveys rock music from its origins to the present. Focuses on musical developments within the genre, as well as historical, sociological, literary and other cultural influences related to this subject.
- MUS 114: INTRODUCTION TO WORLD MUSIC** **3 s.h.**
 Introduces traditional and contemporary musical styles from Algeria to Zanzibar. Examines the diversity of styles such as Zouk, Soukour, Salsa, Rai and Zydeco to name a few. Introduces the myriad of styles collectively known as “World Music.”
- MUS 125: FOUNDATIONS OF MUSICIANSHIP** **3 s.h.**
 Basic training for the music major, to precede the study of MUS 126. Rigorous, hands-on course fosters mastering essential skills, including theory fundamentals, sight singing, and ear training. Intended as a prerequisite to the theory sequence. Students may be granted an exemption via a theory exam.
- MUS 126: MUSIC THEORY I** **2 s.h.**
 Introduces fundamental elements of music construction, function, and analysis. Covers scale construction and identification, triad and seventh chord construction and identification, elements of rhythm, functional harmony, and voice leading. Prerequisite: Music majors or by permission.
- MUS 127: MUSIC THEORY II** **2 s.h.**
 Continuation of Music Theory I. Provides students with fundamental knowledge of music construction and analysis. Covers voice leading, non-chord tones, diatonic seventh chords, secondary functions, modulations, phrase/period structure, cadences, and simple forms (binary and ternary). Prerequisite: MUS 126, grade of C or better.
- MUS 128: AURAL SKILLS I** **1 s.h.**
 Aural skills are essential to the success of all students studying music. Covers melodic and harmonic interval recognition, scale recognition and identification, triad recognition and identification, sight singing (melodic and rhythmic), melodic dictation, and rhythmic dictation. Should be taken concurrently with MUS 126. Prerequisite: Music majors or by permission.
- MUS 129: AURAL SKILLS II** **1 s.h.**
 Continuation of Aural Skills I. Covers interval recognition, triad and seventh chord recognition (root position and inversions), sight singing, melodic dictation, harmonic dictation, and error detection. Prerequisite: MUS 128, grade of C or better.
- MUS 131: FUNDAMENTALS OF MUSIC** **3 s.h.**
 Examines the basic vocabulary of music fundamentals: notation, scale structures, key signatures, triads and seventh chords, rhythm and meter, harmony and its functions, intervals, sight-singing and ear training, dynamics, transposition, and practical application by use of a keyboard instrument. .
- MUS 160: PIANO CLASS I** **1 s.h.**
 Serves two categories of students: the non-piano music major and the non-music major. The purpose for both is the same: teaching piano to beginners in such a manner that they attain an acceptable degree of elementary technical proficiency at the keyboard, a basic knowledge of fundamental scales and chords, and a burgeoning comprehension of the existence and desirability of musicianship. Stresses the development of basic keyboard skills and upon a musical performance on all levels of performance. Prerequisite: MUS 131 or equivalent background.
- MUS 161: PIANO CLASS II** **1 s.h.**
 Helps students develop the ability to perform the skills begun in Piano Class I at a more advanced level. Prerequisite: MUS 160 or permission of instructor. Each semester.
- MUS 182: VOICE CLASS** **1 s.h.**
 Gives students an approach to vocal methods in order to eliminate problems. Teaches students to treat their voices as instruments. Class instruction is offered in voice for the non-voice major. Emphasizes development of the vocal instrument and an attitude of artistic maturity on the part of the students and upon artistic performance at all levels of proficiency. Prerequisite: MUS 131 or equivalent background.
- MUS 220: PIANO CLASS III** **1 s.h.**
 Continues developing skills acquired in Piano Class II to prepare music majors for piano competency exam, including sight reading, transposition, technique, and repertoire. Prerequisite: MUS 161.
- MUS 221: PIANO SKILLS SEMINAR** **0-1 s.h.**
 Continues group instruction in preparation of the Piano Competency Exam for music majors. Continues development of functional and applied piano skills including piano technique, chording, harmonization, and accompaniment skills. Credits earned do not apply toward graduation. Prerequisite: MUS 220 or MUSA 125.
- MUS 224: MUSIC IN THE ELEMENTARY CLASSROOM** **3 s.h.**
 Investigates the pertinent fundamentals of music which can be incorporated by the non-music teacher. Presents pedagogical techniques that develop singing, listening, rhythm, movement, and musical skills. Equips future elementary teachers with skills to employ a variety of musical techniques in the classroom.
- MUS 225: INTEGRATING THE ARTS INTO THE ELEMENTARY CLASSROOM** **3 s.h.**
 Investigates fundamentals of music, theatre, dance, and the visual arts which can be incorporated as primary media for communication, inquiry, and engagement by the elementary classroom teacher into instruction in other subject areas. Presents pedagogical techniques that address elements and standards for each arts area. Prerequisite: EDm.
- MUS 226: MUSIC THEORY III** **2 s.h.**
 Continuation of Theory II. Emphasizes chromaticism and musical forms as developed in the Baroque and Classical periods. Prerequisite: MUS 127, grade of C or better.
- MUS 227: MUSIC THEORY IV** **2 s.h.**
 Continuation of Theory III. Emphasizes advanced harmony and analysis of musical forms from the 18th, 19th, and 20th centuries. Prerequisite: MUS 226, grade of C or better.

- MUS 228: AURAL SKILLS III** **1 s.h.**
Continuation of Aural Skills II. Emphasizes increasingly complex melodies, rhythmic and harmonic progressions. Prerequisite: MUS 129, grade of C or better.
- MUS 229: AURAL SKILLS IV** **1 s.h.**
Continuation of Aural Skills III. Emphasizes complex melodies (modal, tonal, and atonal), rhythmic and harmonic material. Study includes 20th-century models of tonal organizations. Prerequisite: MUS 228, grade of C or better.
- MUS 240: INTRODUCTION TO MUSIC TECHNOLOGY** **3 s.h.**
Introduces the principles and applications of computers, synthesizers, and music synthesis to new music technologies. Achieves understanding through lectures, reading assignments, and hands-on experience with computers, synthesizers, and appropriate computer software programs. Stresses applications of these new technologies to educational settings. Prerequisite: Satisfactory completion of MUS 160 or equivalent proficiency as verified by the instructor.
- MUS 243: BRASS CLASS** **1 s.h.**
Introduces playing and teaching brass instruments. Includes techniques of tone production, fingering, and class procedure learned through individual and ensemble playing. Students expected to develop an elementary proficiency on each instrument.
- MUS 244: STRING CLASS** **1 s.h.**
Introduces playing and teaching the string instruments. Includes techniques of tone production, fingering, and class procedure learned through individual and ensemble playing. Students expected to develop an elementary proficiency on each instrument.
- MUS 245: PERCUSSION CLASS** **1 s.h.**
Introduces playing and teaching standard percussion instruments. Includes the characteristics of various standard percussion instruments, performance techniques, development of performing ability necessary to develop an elementary proficiency on each instrument.
- MUS 246: GUITAR CLASS** **1 s.h.**
Introduces the guitar and bass guitar. Divided into three sections. First section introduces folk guitar techniques and styles, covering basic guitar chords, chordal progressions, melodic harmonization and chord chart reading. Second section introduces finger picking styles, such as classical, country, and jazz styles. Final section introduces the bass guitar. Prerequisite: MUS 131 or permission of the instructor.
- MUS 247: WOODWIND CLASS** **1 s.h.**
Introduces playing and teaching the woodwind instruments. Includes techniques of tone production, fingering, and class procedure learned through individual and ensemble playing. Students expected to develop an elementary proficiency on each instrument.
- MUS 253: HISTORY OF JAZZ** **3 s.h.**
Emphasizes the nature and process of jazz and particularly its historical background and development in the United States. Presents logical musical derivatives and developments and demonstrates the important elements that comprise individual jazz styles as they have evolved to the present time.
- MUS 254: SURVEY OF AMERICAN MUSIC** **3 s.h.**
Provides a complete historical survey of American music from approximately 1620 to the 1980s. Includes musical trends and various styles and musical forms, i.e., religious music, folk music, popular music, and classical music of significant American composers. Presents and analyzes styles and trends in their historical context. Utilizes tapes and live concerts. Prerequisite: MUS 111 or 112, or the permission of the instructor.
- MUS 260: VOCAL PEDAGOGY** **2 s.h.**
Examines the physical nature and function of the vocal instrument and breathing process and how they relate to the fundamental principles of teaching vocal technique. Applies knowledge to the principles of vocal production and technique through lectures, demonstration, and discussion, as well as group participation in instructing each other. Prerequisite: Minimum of four semesters of voice or Voice Class I and II, or permission of instructor.
- MUS 274: INTRODUCTION TO MUSIC BUSINESS** **3 s.h.**
Introduces today's multi-faceted music industry. Includes music retailing, instrument sales, the music agent, artist management, contracts, concert promotion, licensing, publishing, copyright, songwriting, unions and guilds, music in production, advertising and promotion, music in broadcasting and film, and career planning and development. Does not count toward humanities requirement. Prerequisite: sophomore standing.
- MUS 289: MUSIC EDUCATION SEMINAR** **0 s.h.**
Designed for students preparing to enter the upper-division music methods courses. Introduces students to major components of music teaching in elementary and secondary schools. Emphasis is placed on philosophical, psychological, historical, and practical issues affecting the process of music teaching and learning.
- MUS 310: JUNIOR RECITAL** **0 s.h.**
Music majors elect this course if they are presenting a recital in their junior year of applied study. Elected concurrently with MUS 110. Prerequisite: Must be enrolled in upper-division applied study and successfully complete an audition.
- MUS 333: ELEMENTARY MUSIC METHODS** **2 s.h.**
Explores the role of music in elementary school; the roles of classroom teachers, the music specialists, and the consultant. Plans, attitudes, and problems in teaching vocal and instrumental music; curriculum development. Evaluation of musical experience and growth in primary, intermediate, and upper elementary grades. Includes music reading as an integral part of the total music program, musical growth and experience in singing, part-singing, listening, instrumental and rhythmic activities. Emphasizes development of ability to use the voice effectively in teaching, and on the thorough familiarity with music series texts, use of keyboard, rhythmic instruments, recordings, and new developments in teaching aids. Introduces the Orff and Kodaly methods. Required observations and supervised teaching experiences arranged each semester. For music majors or minors only. Prerequisites: MUS 127; MUSA 130/330 or 131/331; MUSA 135/335, 136/336, 137/337, 138/338, or 301; MUSA 136/336, and completion of early field experience requirement.

- MUS 345: MUSIC FROM 1750 TO 1900** **3 s.h.**
Intensive study of the musical styles of the pre-classical, classical, and romantic periods of western music. Discusses important composers and their literature in relation to artistic, social, political, and economic conditions of their period. Emphasizes analysis and listening. Prerequisite: MUS 127 or by permission.
- MUS 346: MUSIC FROM ANTIQUITY TO 1750** **2 s.h.**
Intensive study of the musical styles from the ages of classical Greece and Rome through the Baroque period, including the foundations of plainchant, early polyphony, sacred, and secular music of the 13th to mid-18th centuries. Discusses important composers and their literature in relation to artistic, social, political, and economic conditions of their period. Emphasizes analysis and listening. Prerequisite: MUS 127 or by permission.
- MUS 347: 20th-CENTURY MUSIC** **3 s.h.**
Intensive study of the musical styles of the late Romantic Period (1890) through the 20th century. Discusses important composers and their literature in relation to artistic, social, political, and economic conditions of their period. Emphasizes analysis and listening. Prerequisite: MUS 127, 345, or by permission.
- MUS 349: ART SONG LITERATURE I** **2 s.h.**
Explores representative song repertoire of the German lied and the English language art song from historical and performance perspectives. Stresses the songs of Schubert, Schumann, Brahms, Wolf, Strauss, Britten, and Rorem. Prerequisites: MUS 345, 347, or permission of the instructor.
- MUS 350: ART SONG LITERATURE II** **2 s.h.**
Explores representative song repertoire of French, Italian, Slavic, and Russian composers from historical and performance perspectives. Stresses the songs of Faure, Debussy, Ravel, Poulenc, and Moussorgsky. Prerequisites: MUS 345, 347, or permission of the instructor.
- MUS 351: KEYBOARD LITERATURE** **3 s.h.**
Surveys keyboard music from the Renaissance to the present. Representative works from each period are selected for careful study and analysis, emphasizing performance practices as well as formal and stylistic elements in the music. Includes the development of various keyboard instruments. Prerequisites: MUS 345, 347, or permission of instructor.
- MUS 352: SYMPHONIC LITERATURE** **3 s.h.**
Intensive study of orchestral music from the Baroque period to the present, using scores, live performances and recordings with particular reference to performance practices and stylistic analysis. Prerequisites: MUS 345, 347, or permission of instructor.
- MUS 353: CHAMBER MUSIC LITERATURE** **3 s.h.**
Intensive study of music written for small ensembles from the Renaissance period to the present. Representative works from each period are carefully investigated and analyzed. Performance by members of the class or by faculty groups whenever possible. Prerequisites: MUS 345, 347, or permission of instructor.
- MUS 355: OPERATIC LITERATURE** **3 s.h.**
Surveys the entire field of operatic music from 1600 to the present, including 17th-century Baroque opera; 18th-century operatic reforms (Gluck and Mozart); opera in the 19th century (Verdi, Wagner, Strauss, and Puccini); 20th-century trends in opera (Stravinsky, Berg, Britten, Menotti, etc.) Prerequisites: MUS 345, 347, or permission of instructor.
- MUS 356: CHORAL LITERATURE** **3 s.h.**
Surveys choral music from the 15th century to the present. Emphasizes masses, motets, and madrigals of the Renaissance period; oratorios, cantatas, and passions of the Baroque period; major choral works of Haydn, Mozart, Beethoven, Berlioz, Mendelssohn, Verdi and Brahms; choral works of the 20th century. Prerequisites: MUS 345, 347, or permission of the instructor.
- MUS 357: BAND LITERATURE** **3 s.h.**
Surveys the available published and recorded literature for marching, military and concert bands; symphonic and wind ensembles; and woodwind and brass chamber ensembles. Includes transcriptions and arrangements; major publishers in the field; evaluation of various editions; and also a study of the principal trends of instrumental pedagogy, repertoire, and performance. Prerequisite: MUS 131.
- MUS 360: BASIC CONDUCTING** **1 s.h.**
Develops skilled baton technique and clarity of gesture. Focuses on traditional and modern beat patterns, expressive gestures, cues, and development of left hand. Prerequisite: Music majors or by permission of the instructor. Fall, annually.
- MUS 361: PIANO TEACHING METHODS AND MATERIALS** **3 s.h.**
Surveys modern piano teaching methods and available published teaching materials. Emphasizes the teaching of notation and the development of reading skills; the teaching of keyboard techniques through an understanding of the player's physical mechanism and the coordination of timing and touch; problems of fingering, pedaling, and memorization. Evaluates materials for beginning students; easier teaching pieces by the great composers; anthologies; appropriate music for the intermediate student, leading to a more advanced technique and musicianship and to acquaintance with a wide range of composers and musical styles. Prerequisites: MUS 346 or 131 and permission of the instructor.
- MUS 362: INSTRUMENTAL METHODS** **2 s.h.**
Analyzes principles and procedures of organizing and conducting instrumental classes, bands, and orchestras in the public schools. Includes examination and use of texts, methods, and other materials. For music majors or by permission. Prerequisites: MUS 127; MUSA 130/330 or 131/331; MUSA 135/335, 136/336, 137/337, 138/338, or 301; MUSA 136/336 and completion of early field experience requirement.
- MUS 363: VOCAL METHODS** **2 s.h.**
Analyzes principles and procedures of organizing and conducting vocal classes and choral ensembles in the public schools. Includes vocal techniques, tone production, proper vowel placement, proper focus on tone, diction, diaphragmatic breathing, and investigation of choral literature. For music majors or by permission. Prerequisites: MUS 127; MUSA 130/330 or 131/331; MUSA 135/335, 136/336, 137/337, 138/338, or 301; MUSA 136/336 and completion of early field experience requirement.

- MUS 364: COMPOSITION** **3 s.h.**
Examines the nature of the musical idea and of the various possibilities of its subsequent development, including canonic or fugal treatment, motivic development, and variational procedures. Reviews traditional structural plans and contemporary, formal and stylistic trends. Creative assignments emphasize the understanding of past and present compositional styles and techniques, and the gradual development of a personal language. Prerequisites: MUS 127 or permission of instructor.
- MUS 365: INSTRUMENTAL CONDUCTING** **2 s.h.**
Further develops skilled baton techniques and clarity of gesture. Includes effective rehearsal technique, understanding of performance problems involving tonal balance, tempo, complex rhythmic situations, especially related to intermediate and secondary school instrumental groups. Prerequisite: MUS 360.
- MUS 366: CHORAL CONDUCTING** **2 s.h.**
Further develops skilled choral conducting techniques and clarity of gesture. Includes effective rehearsal technique, understanding of performance problems involving tonal balance, tempo, complex rhythmic situations, especially related to intermediate and secondary school choral groups. Prerequisite: MUS 360.
- MUS 368: BAND ARRANGING** **3 s.h.**
Explores instrumentation and scoring problems in marching, military, and concert bands; symphonic wind ensembles; and woodwind and brass chamber ensembles. Emphasizes score layout and notation, copying and multiple reproduction of parts, copyright implications, and knowledge of effective combination of instrumental sounds. Prerequisites: MUS 131 (or equivalent background) and consent of instructor.
- MUS 369: MARCHING BAND TECHNIQUES AND MATERIALS** **2 s.h.**
Examines the marching band, including organization, music materials, care of instruments and uniforms, marching essentials, administration, and contemporary techniques. Prerequisites: MUS 127 or permission of instructor.
- MUS 370: ORCHESTRATION / ARRANGING** **3 s.h.**
A study of basic orchestration/arranging procedures and principles relative to instrumental and vocal ensembles. Emphasizes music for school use. Prerequisites: MUS 127, 162, 241-245.
- MUS 374: INTERMEDIATE STUDIES IN MUSIC BUSINESS** **3 s.h.**
Explores special topics in the music industry, including the record industry; advanced issues in broadcasting and film; and career planning and development. Emphasizes individual projects in accordance with student interest. Prerequisite: MUS 274.
- MUS 410: SENIOR RECITAL** **0 s.h.**
The Music Department's Senior Recital series, which satisfies a department requirement. Music majors elect this course if they are preparing for a recital in their senior year of study. Elected concurrently with MUS 110. Prerequisite: Must be enrolled in upper-division applied music study and successfully complete an audition.
- MUS 411: SPECIAL TOPICS IN MUSIC** **3 s.h.**
Topics of special interest in the field of music will be offered. Previous subject areas have included Orff—music for children; Kodaly method; and Mozart, the man and his music. Topics will be announced in advance.
- MUS 451: ADVANCED CONDUCTING** **3 s.h.**
Analyzes selected works by band, choral, and orchestral literature with particular reference of performance problems involving tonal balance, tempi, complex rhythmic and polymetric situations, vocal intonations and diction. Provides conducting experience with band, choir, and/or madrigal singers, and orchestra in rehearsal. Emphasizes thorough understanding of the musical score and effective rehearsal techniques. Prerequisites: MUS 365, 366, or permission of instructor.
- MUS 452: WESTERN MUSIC AND ITS RELATIONSHIP TO FINE ARTS** **3 s.h.**
Examines Western music in its stylistic relationship to the fine arts from the Middle Ages through the 20th century. Explores how the various arts responded to each other in the pattern of cultural history.
- MUS 453: MELODIC IMPROVISATION** **2 s.h.**
Provides advanced music students with fundamental concepts of improvisational techniques that may be applied to the development of skills for the invention and performance of improvised melodies. Prerequisite: MUS 227, or equivalent music theory background.



MUS 455: JAZZ COMPOSITION AND ARRANGING 2 s.h.
 Explores basic techniques and methods of jazz composition and arranging. Participants write musical arrangements and original compositions for various jazz and popular idioms, and have the opportunity to conduct and perform their own works.

MUS 470: FORM AND ANALYSIS 3 s.h.
 Analyzes musical styles from the pre-Baroque to the 20th century, with emphasis on the common practice period. An overview of the operative generators of art music such as substructure (motives and phrases); normative structure (e.g. rondo, sonata, variation forms); and aspects of melody, rhythm, counterpoint, and elements of sound. Prerequisites: MUS 227 or permission of instructor.

Advanced Instrumental Techniques and Pedagogy

The sequence of courses listed below constitutes further study of the symphonic instruments. Specialized techniques, which are employed by each instrumental family, will be presented and mastered (strings, woodwinds, brasses, percussion.) Students develop sufficient techniques to enable them to introduce and teach these instruments successfully at the elementary or secondary level. Includes methods, materials, manufacturers, suppliers, repair procedures, and procedures for private, homogeneous and heterogeneous group instruction; studio teaching and management; musicianship and creativity as part of the lesson; planning for various grade levels; history of teaching; and study of leading methods.

MUS 461: ADVANCED STRING TECHNIQUES AND PEDAGOGY 2 s.h.

MUS 462: ADVANCED WOODWIND TECHNIQUES AND PEDAGOGY 2 s.h.

MUS 463: ADVANCED BRASS TECHNIQUES AND PEDAGOGY 2 s.h.

MUS 464: ADVANCED PERCUSSION TECHNIQUES AND PEDAGOGY 2 s.h.

MUS 490: INDEPENDENT STUDY 1-3 s.h.

Provides opportunity to explore, in depth, an area of music of particular interest under the guidance of a faculty member. Requires a scholarly paper or special project(s) for credit and grade. Prerequisite: permission of the instructor and department chair.

Philosophy

Department of Political Science and Philosophy (PSP), Thomas Rourke, Ph.D., Chair

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Professors: Aaron, Lavin, Phillips

Philosophy is unlike other disciplines in the breadth of its subject matter. Since philosophy discusses all aspects of life, it provides an opportunity to think about topics that range from the existence of God to the confirmation of scientific theories. Additionally, philosophy asks the “big” questions that form the foundation of our belief systems and are rarely discussed. Philosophy challenges you to answer questions ranging from “What is the nature of consciousness?” and “What makes life truly meaningful?” to “Why should I be moral?” Philosophy can help you to understand those issues that are most fundamental to your experiences.

The Clarion University faculty can provide you with an experience you cannot get from most other departments of philosophy—two very different philosophical methods. Clarion’s faculty members are trained in analytic philosophy, the most popular style of philosophy within the United States, as well as continental philosophy, one of the most popular European styles, giving students the chance to use two very different approaches in their own studies. Thus, studying philosophy at Clarion will help you to understand those issues most fundamental to your own personal existence from a broad philosophical perspective.

PHILOSOPHY, B.A. 30 credits
Required: PHIL 111 or 311, PHIL 212 or 302 or 308; PHIL 115 or 211; PHIL 300 and 306; Philosophy electives 15 credits from among courses at the 300-level or above. Students must demonstrate competence in either a foreign language or quantitative skills.

PHILOSOPHY, MINOR 18 credits
Required: PHIL 115 or 211; PHIL 111 or 212 or 215; PHIL 300 or 306, and nine credits of philosophy electives at the 300- or 400-level.

Philosophy Courses

PHIL 111: LOGIC I – CRITICAL THINKING 3 s.h.
 Develops students’ skills in analyzing arguments. Examines forms of faulty reasoning and evaluates criteria for the evaluation of arguments. No prerequisite. Annually.

PHIL 115: PHILOSOPHY AND POP CULTURE 3 s.h.
 Introduces students to traditional philosophical topics and problems by reflecting on popular culture and contemporary cultural products such as films, literature, and music. Annually.

PHIL 211: INTRODUCTION TO PHILOSOPHY 3 s.h.
 Introduces students to philosophical topics spanning the history of philosophy. Includes the nature of reality, knowledge, and morality. Students will gain a deeper appreciation of the Socratic maxim: an unexamined life is not worth living. No prerequisite. Annually.

PHIL 212: ETHICS 3 s.h.
 Introduces students to theoretical ethics and the consequences these theories have both personally and for public policy. Examines controversial moral issues. No prerequisite. Annually.

- PHIL 215:** *RELIGIONS OF THE WORLD* **3 s.h.**
Examines the philosophies and practices of the religions of the world, emphasizing Judaism, Christianity, Islam, Hinduism, and Buddhism. No prerequisite. Annually
- PHIL 300:** *ANCIENT GREEK PHILOSOPHY* **3 s.h.**
A survey of philosophy during the Ancient Greek period, with a special focus on Plato and Aristotle. No prerequisite. Annually.
- PHIL 301:** *BIOETHICS* **3 s.h.**
An inquiry into traditional and contemporary ethical issues in medicine, one of the most popular topics in applied ethics. Medical research, practice and public policy are addressed. Prerequisite: Sophomore standing. Every other year.
- PHIL 302:** *ENVIRONMENTAL PHILOSOPHY* **3 s.h.**
An inquiry into the philosophical aspects of issues concerning the environment, environmental theories, policies, and practices are addressed. Prerequisite: sophomore standing (minimum). Every other year.
- PHIL 303:** *FREUD AND PHILOSOPHY* **3 s.h.**
The task of this course is to study Freud's psychoanalytic theory and its influence on philosophy. Prerequisite: Sophomore standing (minimum). Annually.
- PHIL 306:** *MODERN PHILOSOPHY* **3 s.h.**
A survey of philosophy during the 17th and 18th centuries, with a special focus on Continental Rationalism and British Empiricism. No prerequisite. Annually.
- PHIL 307:** *19TH CENTURY PHILOSOPHY* **3 s.h.**
A survey of philosophy during the 19th century, with a special focus on Hegel's German Idealism and the philosophers who reacted against it, such as Marx Nietzsche, and Kierkegaard. No prerequisite. Annually.
- PHIL 308:** *CONTEMPORARY ETHICAL ISSUES* **3 s.h.**
Examines and critically evaluates contemporary ethical issues. Topics may include, but are not limited to, biomedical ethics, business ethics, ethics and education, and environmental ethics. No prerequisite. Annually.
- PHIL 309:** *PHILOSOPHY AND FILM* **3 s.h.**
Examines and critically evaluates various philosophical themes and problems through the use of film chosen for their philosophical content. No prerequisite. Annually.
- PHIL 311:** *LOGIC II - SYMBOLIC LOGIC* **3 s.h.**
A course in formal logic. Consists of a detailed examination of the logical structure, semantics, and proof methods of both sentential and predicate logic, as well as the application of those logics to ordinary English sentences and arguments. No prerequisite. Annually.
- PHIL 312:** *PHILOSOPHY AND LITERATURE* **3 s.h.**
Examines and critically evaluates various philosophical themes and problems through the use of literature chosen for its philosophical content. No prerequisite. Annually.
- PHIL 317:** *LOGIC III: SCIENTIFIC REASONING* **3 s.h.**
A critical thinking course focused specifically on scientific claims and theories and on the scientific method itself. Students will be taught how to recognize and reconstruct inductive arguments typically employed by scientists, e.g. inductive generalizations, arguments from analogy, hypothetico-deductive arguments, etc., and will be taught how to evaluate these arguments for logical merit. Common problems in reasoning effectively regarding scientific issues (i.e., ad hoc auxiliary hypotheses, rival theories, etc.) will be discussed as will be solutions to these problems. No prerequisites. Every other year.
- PHIL 325:** *SPECIAL TOPICS IN PHILOSOPHY*
As needed.
- PHIL 328/CRJT 328:** *ETHICS AND CRIMINAL JUSTICE* **3 s.h.**
A survey of ethical issues for practitioners within the criminal justice system. Topics include ethics of decision-making, origins of the concept of justice, dilemmas of police officers as crime fighters and public servants, fighting corruption, ethics and investigative methods, ethics as it relates to punishment, institutional and community corrections. Prerequisite: Sophomore standing (minimum). On demand.
- PHIL 352:** *THEORY OF KNOWLEDGE* **3 s.h.**
Detailed examination of the concepts of knowledge and of justified belief. Considers and evaluates various theories regarding the nature of these concepts. Investigates the possible sources of knowledge and justified belief. Critically examines various skeptical hypotheses. No prerequisite. Annually.
- PHIL 357:** *PHILOSOPHY AND FEMINISM* **3 s.h.**
Examines traditional and contemporary feminist theories and their consequences for social and political philosophy. Explores various aspects of gender and discusses attitudes concerning the nature of human beings. No prerequisite. Every third year.
- PHIL 360:** *EXISTENTIALISM* **3 s.h.**
A survey of both the philosophical and more literary writings of the existentialist movement—one of the most influential intellectual currents of the twentieth century. No prerequisite. Annually.
- PHIL 400:** *INDEPENDENT STUDY IN PHILOSOPHY* **3 s.h.**
Concentrated exploration of an area of philosophy not covered by existing courses and under the direction of department faculty member. Prior to enrolling, students are required to submit a written proposal outlining their plan of study. Enrollment limited to juniors and seniors with consent of instructor. Maximum number of credits in PHIL 400 is limited to nine.
- PHIL 410:** *PHILOSOPHY OF MIND* **3 s.h.**
Detailed investigation into the fundamental nature of mental phenomena. Discusses various theories of mind, e.g., dualism, philosophical behaviorism, philosophical functionalism, etc. Examines issues involving mental content, mental causation, and consciousness. Prerequisite: PHIL 111 or 211 or permission of instructor. Every other year.

Physics

Department of Physics, Sharon Montgomery, Ph.D., Chair

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Professor: Montgomery

Assistant Professors: Aravind, Heard, Li

Physics is the science of matter, energy, and motion. It encompasses everything in nature from the behavior of the fundamental building blocks of matter to the large-scale evolution of the universe, galaxies, and black holes. Technological breakthroughs such as superconductivity, nanotechnology, and lasers would not have been possible without physics and physicists who have learned to use their knowledge of basic physical laws in novel and creative ways. At Clarion University, students will gain appreciation for nature by using the scientific method of investigation, and learn to effectively communicate their ideas both orally and in written form.

Our small student-to-faculty ratio allows for greater one-on-one instruction. Current faculty at Clarion University specialize in astrophysics, plasma physics, materials physics, nanotechnology, and energy sustainability. Graduates from Clarion University pursue a variety of careers or go on to earn advanced degrees in physics, engineering, medicine, or related fields. Some of our students choose to take advantage of our cooperative engineering program with the University of Pittsburgh and Case-Western Reserve University, while others choose to apply their major to our highly successful program in secondary education. The physics department also offers a concentration in astrophysics and minors in nanotechnology and environmental sustainability.

PHYSICS, B.S.66 credits

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 371, 372, 461, and four additional physics courses at the 300 level or higher. In addition to these courses in physics, the following are required: MATH 270, 271, 272, 350; CHEM 153, 163; and three other courses selected from the sciences, mathematics, or computer science, not including physics.

SECONDARY EDUCATION, B.S.ED.

Certification for grades K-12, Physics (see under Secondary Education Physics), page 158.

Physics Courses

PH 200: SOLAR SYSTEM ASTRONOMY

Examines the motions of the earth, the moon, and the planets and the effect of these motions on the appearance of the sky, the nature of the sun and the planets, the instruments of the astronomer, and the role astronomy has played in the development of our understanding of the sky. Includes constellation identification through the use of the planetarium. Each Spring.

3 s.h.

PH 201: STELLAR ASTRONOMY

Explores human understanding of the nature, formation, and evolution of those celestial objects that lie beyond the solar system. Includes stellar properties and spectra, stellar evolution, special stars and star systems, the Milky Way and other galaxies, cosmology, and cosmogony. Uses the planetarium for constellation study and the development of coordinate systems. Each Fall.

3 s.h.

PH 251: GENERAL PHYSICS I

Introductory course for non-physics majors. Emphasizes mechanics, including vectors, kinematics, dynamics, energy, momentum, rotational motion, harmonic motion, mechanical waves; thermal properties of matter, energy conversion, and efficiency. Integrates computer-based laboratory and lecture into three two-hour class periods. Prerequisite: Algebra. Each Fall.

4 s.h.

PHYSICS, MINOR25 credits

Required: (PH 251, 252) or (PH 258, 268, 259, 269), MATH 270 and 271, and three additional physics courses at the 300 level or higher. Note that some mathematics and physics courses are prerequisites or co-requisites of some of the upper-level classes. The minor in physics is designed for students from other science disciplines like biology, chemistry, mathematics, and industrial mathematics who wish to see the interrelations of matter and energy at a higher level than provided in the introductory courses.

NANOTECHNOLOGY, MINOR38 credits

Required: (PH 251, 252) or (PH 258, 268, 259, 269), PH 254, 270, and three additional science courses at the 300 level or higher. These three courses may be selected from the list of approximately 20 courses appearing on the minor's checklist. The minor in nanotechnology is designed for students from all disciplines in science and mathematics who wish to know more about the revolutionary breakthroughs in physics that allow scientists to organize and manipulate matter at the atomic scale. The minor in nanotechnology prepares students to perform interdisciplinary research on the biological, chemical, environmental, and mathematical aspects of nanoscience.

ENVIRONMENTAL SUSTAINABILITY: SCIENCE

AND POLICY, MINOR18 credits

Required: PH 261, BIOL 202, BIOL 405, and three courses from the list of sustainable science and policy courses on the minor's checklist. Sustainability is society's ability to meet the needs of the present without compromising future generations' ability to meet their own needs. This interdisciplinary minor focused on sustainability is designed to give both science and non-science students the opportunity to study complex environmental concerns and to synthesize the analytical skills of scientific disciplines with the policy skills necessary to solve real-world environmental problems.

PHYSICS, B.S. ASTROPHYSICS CONCENTRATION72 credits

Required: PH 258, 268, 259, 269, 301, 302, 351, 353, 354, 355, 356, 371, 461 and one course at the 300 level or higher. In addition to these courses in physics, the following are required: MATH 270, 271, 272, 350; CHEM 153, 163, 154, 164; and ES 201. Also take two of the following three courses: ES 200, ES 150, CPSC 201. This concentration is designed for physics students who are interested in applying the underlying principles of physics to the planets, stars, and galaxies. It is appropriate for all physics majors and strongly recommended for students planning to attend graduate school in either astronomy or astrophysics.

The cooperative engineering programs in various fields of engineering, other than chemical and petroleum engineering, are also administered by the Physics Department, page 79 and below.

- PH 252:** *GENERAL PHYSICS II* **4 s.h.**
 Introductory course for non-physics majors. Emphasizes electromagnetism and light, including electrostatics, circuits, magnetic fields, geometrical and physical optics, optical instruments, atoms and molecules, the atomic nucleus, and radioactivity. Integrates computer-based laboratory and lecture into three two-hour class periods. Prerequisites: Algebra and PH 251. Each Spring.
- PH 254:** *EXCURSIONS IN NANOTECHNOLOGY* **3 s.h.**
 Introductory course for science and mathematics majors. Discusses current and developing sub-micron range technologies. Includes an exposition of the physical laws governing matter-energy interactions at a microscopic level and their consequences and applications to nanotechnology in areas such as mechanosynthesis, molecular sorting, assembly, and manufacture, nanomechanical computation systems, and fabrication of nanoscale structural components. Relevant demonstrations and experiments are incorporated. Prerequisites: PH 251 and/or PH 252. Spring, even-numbered years.
- PH 258:** *INTRODUCTORY PHYSICS LECTURE I* **3 s.h.**
 Introductory course for physics majors, pre-engineers, and students in other disciplines seeking an understanding of physics at a rigorous mathematical level. Emphasizes mechanics, including vectors, kinematics, dynamics, energy, momentum, rotational motion, harmonic motion, and waves. PH 268 must be taken concurrently by physics majors and pre-engineers. Prerequisite: MATH 270, which may be taken concurrently. Each Fall.
- PH 259:** *INTRODUCTORY PHYSICS LECTURE II* **3 s.h.**
 Continuation of PH 258, an introductory-level course for physics majors, pre-engineers, and students in other disciplines seeking an understanding of physics at a rigorous mathematical level. Emphasizes electromagnetism and optics, including electrostatics, circuits, magnetic fields, geometrical and physical optics, and optical instruments. PH 269 must be taken concurrently with PH 259 by physics majors and pre-engineers. Prerequisite: PH 258. Each spring.
- PH 261:** *PHYSICS OF ENERGY AND THE ENVIRONMENT* **3 s.h.**
 Establishes both a qualitative and quantitative understanding of the physical laws and processes that underlie energy, resource, and environment issues. Discusses economic and social consequences of individual group decisions related to energy use and environmental impact. The course is required for students wishing to complete the minor in environmental sustainability. Prerequisite: Algebra. Each Fall.
- PH 268:** *INTRODUCTORY PHYSICS LABORATORY I* **1 s.h.**
 Complements PH 258, and should not be scheduled by students not enrolled in PH 258. Experiments include free-fall, kinematics, momentum and energy conservation, collisions, and wave phenomena. Each Fall.
- PH 269:** *INTRODUCTORY PHYSICS LABORATORY II* **1 s.h.**
 Complements PH 259, and should not be scheduled by students not enrolled in PH 258. Experiments include electrostatic phenomena, potential, circuits, magnetic forces, refraction, lens properties, atomic spectra, and interference and diffraction. Utilizes computers for data analysis and presentation. Each spring.
- PH 270:** *CONDENSED MATTER LAB PRACTICUM* **18 s.h.**
 An introduction to the processes for constructing sub-micron sized mechanisms. The practicum consists of six emphases: materials, safety and equipment; basic contact lithography, basic etching and deposition techniques; thin film deposition and etching practices; design and mask fabrication; material modification processes; and characterization, packaging, and testing of sub-micron devices. Prerequisites: PH 254, acceptance into the NMT Capstone Semester at Penn State, and must complete a university petition for an independent study course prior to enrollment. Each semester (summer recommended).
- PH 301:** *ASTROPHYSICS I* **3 s.h.**
 Explores the lives of stars using the principles of physics and the tools of astronomy. Topics include celestial mechanics, spectroscopy, stellar atmospheres, stellar interiors, binary stars, nucleosynthesis, energy transport, supernovae, white dwarfs, neutron stars, and black holes. Prerequisites: PH 258; MATH 271, and PH/ES 201. Spring, odd-numbered years.
- PH 302:** *ASTROPHYSICS II* **3 s.h.**
 Explores the objects of the solar system and the universe using the principles of physics and the tools of astronomy. Topics include the nature and formation of the planets and asteroids, the morphology and dynamics of the Milky Way, the nature and evolution of galaxies, the large-scale structure of the universe, and cosmology. Prerequisites: PH 301 and ES/PH 200. Fall, odd-numbered years.
- PH 351:** *MECHANICS: DYNAMICS* **3 s.h.**
 Intermediate course in the mechanics. Uses techniques from vector analysis and differential equations to study mechanics at a level above that of PH 258. Includes Newton's laws of motion, rectilinear motion under the influence of a variable force, oscillatory motion, energy, momentum, motion in three dimensions, central forces, celestial mechanics, systems of particles, and rigid body motion. Prerequisites: PH 252 or 259; MATH 350. Fall, odd-numbered years.
- PH 352:** *ELECTRICITY AND MAGNETISM* **3 s.h.**
 An intermediate-level course in electricity and magnetism. Uses vector algebra extensively in the presentation and development of the basic empirical laws of electromagnetism, and introduces vector calculus as required in the derivation and expression of Maxwell's equations. Includes electrostatics, dielectric media, current and circuits, magnetic fields, magnetic media, Maxwell's equations for vacuum and dielectric media, and electromagnetic waves. Prerequisites: PH 259 (or 252) and MATH 350, which may be taken concurrently. Spring, odd-numbered years.
- PH 353:** *MODERN PHYSICS I* **3 s.h.**
 Intermediate course in modern physics. Includes relativity, kinetic theory of matter, the photon, electron waves, the Bohr model of the hydrogen atom, the Schrodinger wave equation, solution of the Schrodinger wave equation for the hydrogen atom, and atomic physics. Prerequisites: PH 252 or 259; MATH 270 with MATH 271 concurrently. Fall, even-numbered years.
- PH 354:** *OPTICS* **3 s.h.**
 Intermediate course in geometrical, physical, and modern optics. Includes thin lenses, thick lenses, interference, diffraction, polarization, color theory, spectra, lasers, holography, and fiber optics. Prerequisites: PH 252 or 259; MATH 271, with MATH 272 concurrently. Fall, odd-numbered years.

- PH 355: MODERN PHYSICS II** **3 s.h.**
Continuation of Modern Physics I. Includes structure and spectra of molecules, band theory of solids, structure of the nucleus, radioactive decay, nuclear reactions, radiation detectors, and elementary particles. Prerequisites: PH 353, MATH 272. Spring, odd-numbered years.
- PH 356: THERMODYNAMICS** **3 s.h.**
Intermediate course in heat. Develops basic concepts and principles more intensively in the study of properties of gases and in thermodynamics. Includes temperature measurements, thermal expansion, specific heat, thermal conductivity of solids and liquids, thermal properties of gases, change in phase, and heat engines. Prerequisites: PH 252 or 259; MATH 350, which may be taken concurrently. Spring, even-numbered years.
- PH 357: CONDENSED MATTER PHYSICS** **3 s.h.**
The course is an introduction to the structure and properties of matter. Topics to be covered are the energy band theory of solids, composition and symmetry of crystal lattices, bonding and imperfections in crystals, and semiconductor composition and construction. Prerequisite: MATH 272, which may be taken concurrently. Spring, even-numbered years.
- PH 371: EXPERIMENTAL PHYSICS I** **3 s.h.**
Intermediate-level laboratory. Emphasis is on experiments dealing with atomic and nuclear physics—often the classic modern physics experiments—but including thermodynamics, mechanics, electricity and magnetism, and optics. Students select experiments from these areas according to their interests and background, as dictated by equipment availability. Precision measurement and careful error analysis are expected. One lecture hour per week introduces students to research-grade apparatus and techniques. Prerequisites: Completion of or co-registration in PH 353 and at least one of PH 351, 352, 354, 355, 356, 357.
- PH 372: EXPERIMENTAL PHYSICS II** **2 s.h.**
Continuation of Experimental Physics I. The one-hour lecture requirement is omitted, and the student completes a different set of experiments. Prerequisites: PH 371 and completion of (or co-registration in) at least four of the following courses: PH 351, 352, 353, 354, 355, 356, or 357. Each Fall.
- PH 400: SPECIAL TOPICS IN PHYSICS** **3 s.h.**
Covers topics of current interest in physics not examined in other courses. While subject matter selection depends on activity in the discipline that is amenable to undergraduate instruction, the course commonly includes topics from one or more of the current research areas of physics. Prerequisites: junior/senior standing and permission of the instructor, according to the preparation of the students for the topics to be covered. On demand.
- PH 453: INDEPENDENT STUDY IN PHYSICAL MEASUREMENTS** **2 to 6 s.h.**
Examines the theory and use of precision measuring devices covering most of the areas of physics. Experiments are devised to fit background and needs of the individual student, exploiting the equipment from any of the laboratories of the Physics Department. Students will work from three to six hours each week on experimental projects, according to the credit they elect upon consultation with their advisors.
- PH 455: ANALOG ELECTRONICS** **3 s.h.**
Introduces network analysis, A.C. circuits, and solid-state devices. Includes discrete devices, power supplies, isolators, amplifiers, oscillators, operational amplifiers, electronic switches, and logic gates. Emphasizes circuits useful in scientific instruments and data collection, and for controlling experiments. Prerequisites: PH 259/269 or PH 252, and MATH 271. Spring, even-numbered years.
- PH 457: DEMONSTRATIONS IN PHYSICS** **2 s.h.**
Designed for the secondary education major in physics and may not be used as a physics elective for the B.S. in physics major. Stresses preparation and performance of classroom demonstrations and laboratory management in secondary schools. Prerequisite: PH 252 or 259. On demand.
- PH 460: INTRODUCTION TO MATHEMATICAL PHYSICS** **3 s.h.**
Uses the techniques of vector calculus and differential equations to treat problems in mechanics, electricity, and other areas of physics at a level intended to prepare the physics major for graduate level work. Discusses and applies analog and digital computer techniques to a variety of physical problems. Prerequisites: PH 258, 259, mathematics through MATH 350. On demand.
- PH 461: SEMINAR** **1 s.h.**
Consists of mastering the techniques of literature-survey and library research on specific topics, together with the preparation and presentation of formal reports of a research nature. Prerequisites: Senior standing, science major. Spring, annually.
- PH 498: UNDERGRADUATE RESEARCH IN PHYSICS I** **1-3 s.h.**
Gives senior physics majors useful experience in the procedures and techniques of laboratory research in physics. Students will either participate in an on-going research project under the guidance of a faculty member, or initiate an investigation of their own. A final report in a form suitable for publication will be expected at the conclusion of the project. Serves as a substitute for PH 372: Experimental Physics II. Prerequisites: senior standing with a minimum QPA of 3.0 in physics and 3.0 overall. Students who wish to enroll in PH 498 must notify the department chair during the semester prior to enrollment in the course, secure signature of their academic advisors and of the research project director, and must complete a university petition for enrollment in an independent study course. All approvals must be completed prior to registration for research.
- PH 499: UNDERGRADUATE RESEARCH IN PHYSICS II** **1-3 s.h.**
Continuation of PH 498, which may be used to continue specific lengthy research activities initiated in PH 498, for which one semester is insufficient time to allow project completion. Continuation is at the discretion of the project director, and the credits may not be substituted for other physics requirements. The same prerequisites must be fulfilled as for PH 498, except that notification of the department chair must precede any independent study deadlines set by the university.

Physical Science Courses

PHSC 112: BASIC PHYSICAL SCIENCE: PHYSICS AND ASTRONOMY **3 s.h.**

Intended for students not majoring in the sciences or mathematics, and does not presume any prior familiarity with the subject. Science and math majors will not receive credit for this course. Discusses the nucleus of the atom and radioactivity, fundamentals of electricity and simple circuits, and descriptive astronomy. Integrates experiments with the subject matter to develop theory from an experimental basis. Uses the Planetarium extensively in conjunction with the section in astronomy. No prerequisite. Each semester.

PHSC 113: CONCEPTUAL 20TH-CENTURY PHYSICS **3 s.h.**

Learn the physics underlying modern technology that you use today. Covers a variety of topics in solid state physics and modern quantum mechanics, including energy levels and bands, light emissions by materials, wave particle duality, and quantum tunneling. No prerequisites and no knowledge of higher-level mathematics or physics required. Integrates demonstrations, hands-on experiments, computer visualization programs, and in-class discussion to develop conceptual models from an experimental basis. On demand.

PHSC/BIOL 116: AERODYNAMICS: THE PHYSICS AND BIOLOGY OF FLIGHT **3 s.h.**

The biomechanics of flight. Students use techniques in physics and evolutionary biology to study how animals fly and swim. Draw upon bats, birds, insects, and even winged seeds, for discussing and testing the basic operating principles of wings. Apply results obtained with a wind tunnel to the locomotion of objects in water. Compare and contrast the flyers and swimmers of nature with those of human invention. The course has a substantial studio laboratory component. On demand.

PHSC 117: EXPLORATIONS IN PHYSICAL SCIENCE: PHYSICS AND ASTRONOMY **3 s.h.**

Explores selected physical principles with the purpose of providing a background that will enable students to understand physical phenomena. Intended for non-science majors and does not presume any prior familiarity with the subject. Students who have already successfully completed PHSC 112 will not get credit for the course. Topics may include motion, heat, the nucleus of the atom and radioactivity, fundamentals of electricity and simple circuits, atmospheric physics, and descriptive astronomy. No prerequisite. Spring, annually.

Political Science

Department of Political Science and Philosophy (PSP),

Thomas Rourke, Ph.D., Chair

313 Founders Hall

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E-mail address: trourke@clarion.edu

Website: www.clarion.edu/philosophy

Professors: Rourke, Sweet, Yenerall

Twenty-four centuries ago, the great philosopher Aristotle argued that politics was “the master science” because it determined how the knowledge obtained in all other disciplines is socially used. In our era of globalization, in which decisions made by the government of one country have increasing political, economic, and social ramifications in others, the validity of Aristotle’s argument is even more glaring. Moreover, the demand for graduates who understand local, national, and global politics is greatly increasing. The political science major provides students with the tools necessary to understand the range of factors shaping the local, national, and global environments in which we live, to think critically and independently concerning pressing political issues, and to come to critically reasoned conclusions as to how we can organize the life we share with our fellow citizens and millions of people around the world.

Clarion University provides an especially favorable environment for the study of political science. An energetic, dedicated, and involved faculty instructs students in small classroom settings which permits a significant degree of faculty-student interaction. A favorable faculty-student ratio also permits considerable student access to faculty for the

purposes of consultation, advising, and career planning. The small size of the program contributes to a sense of camaraderie and guarantees the individual attention students need. The political science faculty offer robust courses spanning a broad range of contemporary political science: American politics, constitutional law, state and local politics, international and comparative politics, political philosophy, politics and film, public administration, and political methodology.

Criminal Justice Concentration

Students with an interest in criminal justice have the option of pursuing a criminal justice concentration within the political science major. For students choosing the criminal justice concentration, degree requirements for the political science major are slightly different, as indicated below.

Internships

Political Science majors are encouraged to acquire experience through internships. In pursuit of that end, the Political Science Division offers a variety of internship experiences on a yearly basis. Past internship experiences have included working on political campaigns, field experiences with local and county government institutions, and working with interest groups. In addition, interested students are encouraged to participate in opportunities available in our nation’s capital through a variety of internships and programs such as those offered by The Washington Center. Students receive academic credit for working as interns.

POLITICAL SCIENCE, B.A. 51 credits

Required: PS 210, 211, 311 or 352, 365 or 366, and 18 credits of political science electives. In addition to these 30 credits in political science, the following courses are required: ECON 211, 212; SOC 211; and 12 credits from history, anthropology, or psychology. Students must demonstrate competence in either a foreign language or computer competency.

POLITICAL SCIENCE, B.A., CONCENTRATION IN**CRIMINAL JUSTICE** 38-39 credits

Required: PS 210, 211, 18 hours in PS 300-499; CRJT 110, 11-12 hours in additional criminal justice coursework. Students must additionally demonstrate competence in either a foreign language or quantitative skills.

POLITICAL SCIENCE, MINOR 18 credits

Required: PS 210, 211, 311 or 352, and nine additional credits to be selected at the 300 or 400 level.

Political Science Courses

- PS 210:** *INTRODUCTION TO POLITICAL SCIENCE* **3 s.h.**
A comprehensive introduction to the political world, examining the multidimensional forces shaping the contemporary scene. In addition to coverage of the classical topics such as political theory, ideologies, political regimes, bureaucracy, comparative and international politics, the course examines the impacts of contemporary factors such as globalization and political economy, the demand for universal human rights, terrorism, and environmental politics. Each semester.
- PS 211:** *AMERICAN GOVERNMENT* **3 s.h.**
Study of the general principles of the American system of constitutional government emphasizing the organization of functions of the national government—legislative, executive, and judicial. Examines the rights and duties of citizenship, the electorate, political parties, civil rights, and the growing regulatory function of government. Each semester.
- PS 302:** *POLITICS AND FILM* **3 s.h.**
Explores the relationship between movies, political attitudes, and the real world of American politics and government. Examines Hollywood's depiction of the presidency, campaigns and candidates, the mass media, cold war politics, conspiracy theories, and the struggle for civil rights and social justice. Introduces students to seminal political films and relevant readings that help place the movies and their messages in the context of important political events. Prerequisite: PS 210 or 211 or permission of the instructor. Every year.
- PS 304/CRJT 304:** *CRIME, POLITICS, AND PUBLIC POLICY* **3 s.h.**
The course explores the way in which government treats crime as a public policy matter, with a predominant focus on legislative and executive branch activity. Topics may vary somewhat from year to year. Examples of policies to be examined and evaluated include: reducing the incidence of crime, the politics of imprisonment, punitive and restorative justice, decriminalization, drugs and crime, death penalty, gun control, hate crimes, "zero tolerance" approaches, pornography, corporate crime, organized crime, and terrorism. The constitutional and legal framework of policies will also be considered. On demand.
- PS 311:** *COMPARATIVE POLITICS* **3 s.h.**
Considers the central issues of comparative political inquiry with an emphasis on advanced industrial nations and Latin America. On demand.
- PS 325:** *POLITICS AND RELIGION* **3 s.h.**
Investigates the ways in which politics and religion interrelate, using theoretical and behavioral approaches. Examines issues in both domestic and international politics. Prerequisite: PS 210 or 211 or permission of the instructor. Every other year.
- PS 350:** *SPECIAL TOPICS IN POLITICAL SCIENCE*
Offered occasionally.
- PS 351:** *STATE AND LOCAL GOVERNMENT* **3 s.h.**
Detailed study of how our state and local governments function. Emphasizes Pennsylvania government. Requires independent study through outside projects. Every other year.
- PS 352:** *INTERNATIONAL POLITICS* **3 s.h.**
Presents a framework for analyzing the behavior of states, the basic factors which motivate and affect international policies, and the techniques of resolving international conflicts. Every other year.
- PS 354:** *CONSTITUTIONAL LAW OF THE UNITED STATES* **3 s.h.**
A study of the development of the Constitution through the interpretations of the Supreme Court. Includes a study of the separation of governmental powers, political and judicial processes, federalism as a legal device, and the relationship of liberty and authority to the individual living under government. Prerequisite: PS 211. Fall, alternate years.
- PS 355:** *POLITICAL PARTIES AND ELECTIONS* **3 s.h.**
A survey course emphasizing the electorate, pressure groups, the media, the nature and history of political parties, party organization, methods of nominations, and elections. Examines political parties and elections as instruments of democracy. Fall, alternate years.
- PS 356:** *CONGRESS AND THE LEGISLATIVE PROCESS* **3 s.h.**
Examines the legislative process in American representative government with primary concern given to the structure, operation, and development of the U.S. Congress. Spring, alternate years.
- PS 357:** *THE AMERICAN PRESIDENCY* **3 s.h.**
Examines the history, practice, and political ideas related to the institution of the American presidency. Emphasizes the presidency's place within the constitutional system of separated powers and how that institution has evolved into the office we see today. Alternate Fall semesters.
- PS 363/CRJT 363:** *CRIMINAL PROCEDURE* **3 s.h.**
A study of law as it relates to arrest, search, and seizure with emphasis on present controlling legal decisions and historical development, philosophy, and public policy issues underlying these decisions. Annually.

- PS 364:** *CONSTITUTIONAL LAW – CIVIL RIGHTS / LIBERTIES* **3 s.h.**
A study of the development of the Constitution of the United States through an examination of the decisions of the Supreme Court in the area of civil rights and liberties. Introduces some legal terminology and uses the case method. Prerequisite: PS 211. Spring, annually.
- PS 365:** *ANCIENT AND MEDIEVAL POLITICAL THOUGHT* **3 s.h.**
Explores the development of political theory from Plato to Machiavelli. Every year.
- PS 366:** *POLITICAL IDEOLOGIES* **3 s.h.**
Explores the development of political thinking in the modern period, emphasizing the development of ideologies. Particular attention is given to liberalism, conservatism, Marxist and non-Marxist socialism, fascism, libertarianism, environmentalism and contemporary liberation ideologies. Every other year.
- PS 375:** *PUBLIC POLICY AND ADMINISTRATION* **3 s.h.**
Introduces public administration emphasizing its function in the American political process. Applies public administration theory and practice to enduring and contemporary public policy challenges and achievements. Every other year.
- PS 395:** *AMERICAN POLITICAL THOUGHT* **3 s.h.**
Examines major political thinkers and ideas which have shaped the American political tradition. Emphasizes the competing ideas of government which were influential at the time of the American founding. Considers contemporary competing paradigms in American political thoughts.
- PS 398:** *EMPIRICAL POLITICAL ANALYSIS* **3 s.h.**
Introduces students to the fundamental concepts and research methods used in political science. Provides students with an understanding of how and why political scientists conduct political research. Because the use of statistical/ empirical analysis is an important part of the research process, students will be introduced to statistical applications used in political science. Prerequisites: PHIL 311, MATH 221 or MATH 222, CIS 110 and CIS 217, or consent of instructor. Every other year.

Pre-Professional Studies

Pre-Professional studies involves your university preparation for pursuing a career in many different career fields such as engineering, law, business administration, and the careers in the healing arts. It is more than just course work and majors; it is the guiding and instructing of the student who wishes more: to be more.

Clarion University has various affiliation agreements with other specific universities and their associated post-baccalaureate degree to a student who enters into the specific affiliation agreement and completes all the affiliation requirements. Most of the programs require two to three years at Clarion and then one to four years at the affiliated institution. Upon successful completion of studies at the accredited and affiliated school, the student will receive a baccalaureate degree from Clarion University. For specific information about the various affiliations with Clarion, see below and contact the coordinator or department in charge of the specific program.

Students must complete all requirements associated with the prescribed affiliation and must apply for graduation prior to entering the professional school. Students eligible to receive the baccalaureate degree shall be permitted to participate in the Clarion University graduation ceremony.

Pre-Engineering

Since curricular requirements vary among engineering schools and fields of specialization, students planning to transfer to a school of engineering must give careful consideration to the requirements of the institutions to which they intend to apply and, with the exception of those in the Cooperative Engineering Program, should plan to transfer no later than at the completion of their sophomore year. The following courses should be included in their programs at

Clarion: MATH 270, 271, 272, 350, 370; CHEM 151, 152, 161, 162; CPSC 201; PH 258/268 and 259/269. Interested students should contact the Physics Department.

Pre-Law Studies

No particular major is required for admission to law school because law schools desire a broad-based undergraduate education that will prepare a student to read, write, and think. However, because law deals with human institutions and values, some courses are recommended. English language and literature courses are indispensable. Students also should be aware of the institutional processes by which laws are made, and thus courses in political science and history are vital. Economics and accounting are helpful as well. Philosophy and computer science courses can help develop essential logic and problem solving skills. For specific course recommendations or further information, interested students are strongly urged to contact the pre-law advisor in the Department of Political Science and Philosophy. Additionally, Clarion University students are also eligible to participate in “3+3” early admission and/or joint degree programs with Widener University School of Law and Duquesne University School of Law.

Pre-Master of Business Administration Option

The College of Arts and Sciences, in cooperation with the College of Business Administration, has prepared a program at the baccalaureate level which provides the basic courses needed for further graduate training for business careers. Undergraduate students intending to complete the pre-M.B.A. option will meet the university’s general education and special College of Business Administration requirements, will complete an arts and sciences major

of choice, and will be advised to enroll in specific business administration and related core courses. Students completing the suggested courses in business may meet the requirements for a business administration minor. Requests to declare this minor should be filed in the dean's office of the College of Business Administration. However, completion of the suggested undergraduate courses does not guarantee admission to any graduate business program. The courses provide the student with a background suitable for study at the graduate level.

The student, through consultation with the pre-M.B.A. advisor, will first take lower-division skills and general knowledge courses. These courses should help students assess their ability and interest in business subjects and may also provide background preparation for assistantships during their graduate study. The courses, or approved equivalents, include: ECON 211, 212; ECON 221 or MATH 221; ECON 222; CIS 217; MATH 131; ACTG 251, 252; and BSAD 240.

The upper-division courses suggested for the Pre-M.B.A. are FIN 370; MGMT 320, 345; and MKTG 360. Achievement of a 2.75 QPA is generally considered to be minimally acceptable for admission to the M.B.A. Program. Students seeking admission to the M.B.A. Program are encouraged to take the GMAT or GRE during the first semester of the senior year.

The arts and sciences pre-M.B.A. student may not take more than 30 undergraduate credits in the College of Business Administration at Clarion unless formally admitted to Clarion's M.B.A. Program. Changes in the requirements for admission to the upper-division courses, as well as in the list of suggested appropriate courses, may be made upon approval. Students should consult Dr. Brenda Ponsford, the pre-M.B.A. advisor, before registration each term.

Pre-Medicine, Pre-Chiropractic, and Related Fields

Students who enroll at Clarion intending to enter a professional school for the study of medicine, dentistry, optometry, podiatry, chiropractic, veterinary medicine, or pharmacy, are advised by the Pre-Professional Committee. While students may choose any academic major, they must complete sufficient course work in the sciences, mathematics, and liberal arts to meet admission requirements established by the professional schools. In addition to academic requirements, many professional schools expect applicants to have engaged in specific kinds of services related to the profession and to be able to demonstrate a knowledge of the profession through these services. Students must also take an admissions examination designed by the professional association to assist admissions committees in evaluating the applicant's preparation for that profession. Such examinations (MCAT, DAT, GRE, etc.) normally are taken near the end of the junior year or the beginning of the senior year at Clarion. Clarion University has entered into a "3+4" and "4+4" affiliation agreement with Lake Erie College of

Osteopathic Medicine (LECOM), whereby qualified Clarion students are guaranteed a seat at LECOM upon completion of the affiliation requirements. Clarion University has entered into a "2+3" and "3+3" affiliation agreement with LECOM School of Pharmacy, whereby qualified Clarion students are guaranteed a seat at LECOM upon completion of the affiliation requirements. Clarion University also has a "3+3" affiliation agreement with Logan College of Chiropractic whereby qualified Clarion students can complete their final year of college while beginning their chiropractic training.

Because the following courses usually are required by professional schools, it is recommended students complete the following work at Clarion:

BIOL	155:	Principles of Biology I
BIOL	165:	Principles of Biology I Laboratory
CHEM	153/163:	General Chemistry I
		OR
CHEM	151/161:	Chemical Principles I
CHEM	251/262:	Organic Chemistry I
PH	251:	General Physics I
MATH	270:	Calculus I
ENG	111:	Writing II
CHEM	154/164:	General Chemistry II
		OR
CHEM	152/162:	Chemical Principles II
CHEM	252/262:	Organic Chemistry II
PH	252:	General Physics II

Students also must complete requirements for an academic major within a specific department. If the student chooses to major in one of the sciences, the above courses may be included in the major.

Requirements for admission to specific professional schools vary slightly; thus, the student must determine such requirements through the Pre-Professional Committee.

The Pre-Professional Committee will assist students in arranging to take admissions examinations and preparing admissions materials. For information, send inquiries to Department of Biology, Chair, Pre-Professional Committee.

To ensure proper advisement, students must contact the Pre-Professional Committee at once.

Pre-Pharmacy

When applying to Clarion University, students may apply for admission into a "3+3" accelerated pharmacy program in affiliation with Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy. In this program, students will spend three years at Clarion University (Phase I) as a Chemistry major with a concentration in Biochemistry and will have a guaranteed seat at LECOM upon successful completion of Phase I. At LECOM (Phase II), courses from the first year will count toward completion of the BS in Chemistry at Clarion. This program is highly competitive and high school seniors applying to Clarion should contact, the Admissions Office for details. Clarion also advises students who are applying to other pharmacy schools, or who wish to apply to LECOM but are not in the 3+3 program.

Psychology

Department of Psychology, Randall M. Potter, Ph.D., Chair

237 Harvey Hall

Telephone: 814-393-2295

E-mail address: rpotter@clarion.edu

Website: www.clarion.edu/psych

Professors: Ashcraft, Forden, Haynes, Jolley, Mitchell, Nicholls,
Potter, Schlueter, Slattery, Vilberg

Are you interested in what makes people tick? For example, why do people help when you're standing by a country road, but don't when you're stranded on the interstate? Why do some people eat when they're depressed and others lose their appetites? What do humans and other animals have in common? What is the relationship between your early childhood experiences and your later adult life? Is your behavior determined more by your genes or your experience? If these kinds of questions are of interest to you, psychology may be the major for you. Psychologists study many issues relevant to the human condition. While some focus on how to help people with problems, others work to better select and train employees. While some psychologists are interested in how the brain determines behavior, others study how behavior changes as we age. Psychologists can be found in human service agencies, schools, industry, advertising, hospitals, and research laboratories. Furthermore, a background in psychology can give you a good foundation for careers in business, law, medicine, or religion.

The Psychology Department is a friendly department with dedicated teachers and advisors. It offers two majors and one minor to fit students' varying career interests. The department's faculty will help you prepare for your future career with individual attention, research opportunities, and supervised

internships. While you might fall through the cracks at a larger school, you won't at Clarion. This is a great place to learn about psychology and yourself!

PSYCHOLOGY, B.A.50 credits
Required: PSY 211, 230, 251/252 (each with the grade of C or higher), 260, 354, 355, and either 456 or 470, plus at least 15 credits in psychology electives chosen in consultation with a departmental advisor. Three elective courses at the 400-level only (only three credits of PSY 499 or COOP 468 may be used) in addition to PSY 456 or 470, are required. In addition to the 38 credits in psychology, students are required to select 12 credits from at least two of the following areas: courses from General Education Liberal Knowledge, Section II. A, B, and C, excluding CMST 101, 102 and THE 103, 104, 120, 121, 161, 262, 350, 351, 362, 364, and 367. In addition to the above, students are required to pass the final examination in either their 250 or 252 language course.

PSYCHOLOGY, B.S.47 credits
Required: PSY 211, 230, 251/252 (each with the grade of C or higher), and PSY 260. In addition, one from among PSY 352, 452, 453, or 458, at least one from among PSY 321, 331, 464, 467, 471, or 475, at least two from among PSY, 354, 355, 362, 454, or 455, and one of PSY 456 or 470 are required. Additional courses to total 47 credits in psychology are required to complete the major. At least four courses at the 400 level (only three credits of PSY 499 or COOP 468 may be used), chosen in consultation with a departmental advisor, must be included within the major, as well as one course (in addition to PSY 230, 251, and 252) with a laboratory experience. Students also must complete one college-level mathematics course (MATH 111 or higher) in addition to the general education mathematics requirement or place into MATH 171 or above.

PSYCHOLOGY, MINOR18-20 credits
Available to all undergraduate students.
Required: PSY 211 and five other psychology courses (at least nine credits of which must be at the 300 or 400 level). A 2.0 QPA is required in the minor.

Psychology Courses

- PSY 111: PSYCHOLOGY OF PERSONAL GROWTH** **3 s.h.**
Emphasizes personal growth, enabling each student to explore self-identity, social relationships, and environmental influences. Explores problems of personality, resolution of conflicts and stress, and the role of emotions in behavior, relationships, and health. No prerequisite. Each semester at Clarion. Annually at Venango.
- PSY 122: DRUGS, SOCIETY, AND BEHAVIOR** **3 s.h.**
Reviews common legal and illegal drugs, modes of action, causes of abuse, and available treatments. The focus of the class is to raise students' awareness of these issues, not to provide treatment or training in drug abuse rehabilitation. No prerequisite. Annually.
- PSY 211: GENERAL PSYCHOLOGY** **3 s.h.**
Introduces the general subject matter of psychology as a science and its major findings. Emphasizes genetics, development, learning and motivation, emotions, sensation and perception, personality and abnormal adjustment, and other social behavior. No prerequisite. Each semester at both Clarion and Venango Campuses.
- PSY 212: BRAIN AND BEHAVIOR** **3 s.h.**
Introduces the relationships between brain and behavior. No prerequisite. As necessary (annually).
- PSY 220: HUMAN SEXUALITY** **3 s.h.**
Provides students with an overview of the area of human sexuality. Begins with an explanation of how human sexuality is studied. Includes a discussion of sex roles; the biological division of males and females; the physiology of the human sexual response cycle; and sexual behavior such as homosexuality, sexual coercion, and sexual dysfunctions. Covers health issues such as sexually transmitted diseases, birth control, pregnancy, and childbirth. No prerequisite. Each semester.
- PSY/MGMT 228: HUMAN BEHAVIOR IN ORGANIZATIONS** **3 s.h.**
Explores how basic psychological principles can be used to describe, explain, and predict individuals' on-the-job thoughts, feelings, and behaviors. Includes personality, motivation, perception, attitudes, stress, communication, learning, leadership, group behavior, cooperation, decision-making, and research methods. B.S. business administration majors can apply this course to free electives only. No prerequisite. On demand at both the Clarion and Venango Campuses.

- PSY 230:** *INTRODUCTORY STATISTICS FOR THE BEHAVIORAL SCIENCES* **4 s.h.**
Covers basic descriptive and inferential statistical techniques (frequency distributions, measures of variability and central tendency, correlation, regression, z, t). Gives special attention during class and a required laboratory meeting to the use of those techniques in dealing with data in the behavioral sciences and their importance in the research endeavor. Prerequisite: PSY 211. Each semester.
- PSY 240:** *CRITICAL THINKING AND WRITING IN PSYCHOLOGY* **3 s.h.**
Develops cognitive and writing skills linked with success in psychology, a field in which thinking and writing critically enable effective writing and work. Prerequisites: PSY 211; limited to psychology and sociology/psychology majors. Annually.
- PSY 251:** *RESEARCH METHODS FOR THE BEHAVIORAL SCIENCES* **3 s.h.**
Familiarizes students with methods used by psychologists to systematically collect information about the behavior of people and other animals. Experiments are conducted during laboratory meetings, and the appropriate style of writing research reports is emphasized. PSY 211 and 230, with at least a C in PSY 230, are prerequisites; concurrent registration with PSY 230 permitted only with consent of the instructor. Each semester.
- PSY 252:** *RESEARCH METHODS LABORATORY* **1 s.h.**
Experiments are conducted during laboratory meetings and particular attention is given to the appropriate A.P.A. style of writing research reports. Concurrent registration or previous credit for PSY 251 is required. Prerequisites: PSY 211 and at least a C grade in PSY 230. Each semester.
- PSY/GERO/SOC 253: INTRODUCTION TO GERONTOLOGY** **3 s.h.**
Provides general introduction to social gerontology. Emphasizes the typical aspects of aging. Reviews current hypotheses and findings concerning aging processes. No prerequisite. Annually.
- PSY 260:** *DEVELOPMENTAL PSYCHOLOGY* **3 s.h.**
Surveys research and theory on human life-span development. Students study social, cognitive, emotional, and physical aspects of development from conception to death. Prerequisite: PSY 211. Each semester at Clarion. Annually at Venango.
- PSY 300:** *CROSS-CULTURAL PSYCHOLOGY* **3 s.h.**
Introduces students to research on the similarities and differences among different racial and ethnic groups in the United States and around the world. Examines research in several areas of psychology, such as developmental, social, cognitive, etc. Encourages students to apply the research to daily life in discussions of stereotyping, aggression, intelligence, motivation, etc. Prerequisite: PSY 211. Annually.
- PSY 321:** *PSYCHOLOGY OF ADOLESCENCE* **3 s.h.**
Focuses on the cognitive, emotional, social, and physical changes of adolescence. Through such topics as emerging sexuality, intimacy, identity formation, moral development, and vocational development, students will gain an appreciation for the unique developmental challenges of adolescence. Prerequisites: PSY 211 and 260. Annually.
- PSY 325:** *COMMUNITY PSYCHOLOGY* **3 s.h.**
Focuses on the connections between the individual and the community in order to develop interventions which will prevent social problems and promote psychological health. Students learn how to apply the community psychology approach to specific social issues. Students become familiar with local and national community-based intervention programs and learn how to conduct assessment and evaluation research on such programs. Prerequisites: PSY 211. Spring, biannually.
- PSY 330:** *PSYCHOLOGY OR HAPPINESS* **3 s.h.**
What is happiness? How can we achieve happiness: This course is an exploration of the new area of positive psychology which is concerned with using science to discover the factors which make life meaningful, create happiness, and enable individuals and communities to thrive. Positive psychologists see happiness as a skill which can be studied, taught and learned. The course will look at evidence from the biological, cognitive, social, and clinical areas of psychology in order to understand happiness, with the aim of using what we learn to improve our own lives.
- PSY 331:** *CHILD PSYCHOLOGY* **3 s.h.**
Focuses on cognitive, social, emotional, and physical development from conception through childhood. Prerequisites: PSY 211 and PSY 260. Annually at both Clarion and Venango.
- PSY 340:** *PSYCHOLOGY OF WOMEN* **3 s.h.**
Introduces students to the roles involved with being men and women, to the ideologies in various feminist theories, and to past and present research in the area of psychology of women. One of the purposes of the course is to demonstrate how bias (especially sexism) can creep into the research process, work situations, and personal lives, and the importance of both male and female perspectives in each of these areas. Prerequisite: PSY 211. Annually.
- PSY 350:** *INDUSTRIAL PSYCHOLOGY* **3 s.h.**
Focuses on applying theories and methods of scientific psychology to improve the way organizations select, train, motivate, retain, and evaluate employees. No prerequisite, but PSY 211 and 230 are recommended. Annually.
- PSY 352:** *PSYCHOPHARMACOLOGY* **3 s.h.**
Examines how drugs effect neurotransmitter systems to control behavior. Emphasizes neurochemical and neuroanatomical explanations of pharmacological effects. Examines the major classes of psychoactive drugs with respect to the mechanism of action of the drug and what the drug effect reveals about normal central nervous system functioning. Prerequisite: PSY 211 or consent of instructor. Annually.
- PSY 354:** *ABNORMAL PSYCHOLOGY* **3 s.h.**
Surveys the principal forms of behavior disorders, emphasizing their etiology, diagnosis, prognosis, and treatment. Prerequisite: PSY 211. Each semester.
- PSY 355:** *SOCIAL PSYCHOLOGY* **3 s.h.**
The scientific study of social behavior and interpersonal relationships. Prerequisite: PSY 211. Annually.
- PSY 357:** *INTRODUCTION TO PSYCHOLOGICAL TESTING* **3 s.h.**
Covers the nature and use of tests, including intelligence, personality, aptitude, interests, and achievement. Students prepare behavior objectives, construct tests of items which sample the objectives, administer the tests, and analyze the results. Prerequisite: PSY 211, 230, or the permission of the instructor. On demand.

- PSY 360:** *SPECIAL TOPICS* **3 s.h.**
 Focuses on a single, broad contemporary issue of current interest in psychology and related fields of study. Course content varies from semester to semester. May be taken three times for credit. Prerequisite: PSY 211. On demand.
- PSY 362:** *COGNITIVE PSYCHOLOGY* **3 s.h.**
 Examines information processing, human memory, attention, mental representation, problem solving, and intelligence, to understand the complexities of human cognitive processes. Considers contemporary and historical models of mind to determine their usefulness in understanding the psychological bases of thinking. Prerequisite: PSY 211. Annually.
- PSY 364:** *TECHNIQUES IN INTERVIEWING AND CASEWORK* **3 s.h.**
 Introduces students to basic methods in interviewing and casework. Students will practice entry-level writing and communication skills with peers under close supervision. Prerequisite: Abnormal Psychology or by permission of instructor. Annually.
- PSY 370:** *FORENSIC PSYCHOLOGY* **3 s.h.**
 Reviews the emerging field of forensic psychology, including issues related to legal competency, insanity plea, eyewitness testimony, determination of "truth," criminal profiling, jury selection, discrimination, sexual harassment, and child custody determination with a focus on the role of the professional psychologist in these areas.
- PSY 380:** *APPLICATIONS OF BEHAVIORAL PRINCIPLES* **3 s.h.**
 Assists students in applying general behavioral principles to personal change as well as to change that they initiate with clients in entry-level human services positions. Prerequisite: Nine hours in psychology or by permission of instructor. Annually.
- PSY 390:** *RESEARCH IN GENDER PSYCHOLOGY* **3 s.h.**
 Students conduct empirical research on gender as a biological, psychological, and social experience. Through reading, lecture, and discussion they have the opportunity to compare the results of their own investigations to those found in both classic and current studies of gender. Prerequisite: PSY 211 and a course in statistics (PSY 230, MATH 221, or ECON 221). Fall, biannually.
- PSY 393:** *INDEPENDENT STUDY* **3 s.h.**
 Students explore an area of special interest in depth for variable credit under the supervision of a member of the department and with approval of the chairperson. Open to juniors and seniors. Prerequisite: PSY 211.
- PSY 401:** *INDIVIDUAL RESEARCH PROJECT* **3 s.h.**
 Students conduct research under the direction of an individual faculty member in the department. Work culminates in a paper of professional quality. Students present their research in a public forum. Registration requires prior approval of instructor. Taught on an individual instruction basis. Prerequisites: PSY 211, 230, 251, with at least a C grade in PSY 251. As approved.
- PSY 427:** *TESTS AND MEASUREMENT IN PSYCHOLOGY* **4 s.h.**
 Reviews theories of test construction and measurement theory with application to psychological tests and research instruments. Students develop an instrument and provide data to support its reliability and validity. Prerequisite: a course in statistics or by permission of instructor.
- PSY 452:** *PHYSIOLOGICAL PSYCHOLOGY* **4 s.h.**
 Analyzes the physical and biological mechanisms underlying behavior. Includes drugs and behavior, perception, emotions and motivation, sleep, learning and memory, language, psychopathology, etc. Introduces a variety of laboratory methods and techniques via demonstrations. Open to juniors and seniors. Prerequisites: PSY 211, 230, and 251, with at least a C grade in PSY 251. Annually.
- PSY 453:** *HUMAN NEUROPSYCHOLOGY* **3 s.h.**
 Focuses on what is known about the human brain, particularly the neocortex, and how it affects behavior. The course will examine principles of brain function, basics of neurological examination, and the structural-functional relationships emerging from the frontiers of neuroscience—particularly the study of the human neocortex. One section, alternate years.
- PSY 454:** *PERSONALITY* **3 s.h.**
 Surveys several of the major theories of personality development and structure from the classic ideas of Freud and Jung to the current cognitive theories of Bandura. Also covers trait and humanistic approaches. Prerequisite: PSY 211 and six credits in psychology. Annually.
- PSY 455:** *LEARNING AND MEMORY* **4 s.h.**
 Surveys attempts to understand and explain learning and memory. Emphasizes a comparison of current theories and their implications when applied to forms of learning and memory from the simple to the complex. Prerequisites: PSY 211, 230, and 251, with at least a C grade in PSY 251. Annually.
- PSY 456:** *HISTORY AND SYSTEMS OF PSYCHOLOGY* **3 s.h.**
 Examines the foundations of psychological thought and its development from Greek civilization through the reformation and to a period of quasi-maturity in the formal system of the late 19th and early 20th centuries. Prerequisites: PSY 211, 230, and 251. Annually.
- PSY 458:** *SENSATION AND PERCEPTION* **3 s.h.**
 Examines the sensory-perceptual processes with a view to understanding their structure, properties, and role in psychological functioning. Emphasizes physiological processes involved in sensation and their concomitant limitations on the psychological processes of perception. Prerequisite: PSY 211, 230, and 251, with at least a C grade in PSY 251. Every other year.
- PSY 464:** *THEORIES OF COUNSELING* **3 s.h.**
 Introduces the field of counseling and psychotherapy. Surveys the major models in the field, with focus on assumptions and applications in a variety of settings. Covers professional issues, ethics, and current topics. Prerequisites: PSY 211 and 354 (or approval of instructor). Each semester.
- PSY 467:** *ADULT DEVELOPMENT AND AGING* **3 s.h.**
 Study of the changes in human behavior from late adulthood until death. Emphasizes the physical, emotional, intellectual, and social aspects of later life. Prerequisites: PSY 211 and 260. Annually.
- PSY 470:** *SENIOR SEMINAR IN PSYCHOLOGY* **3 s.h.**
 Applies what students have learned about psychological theory and practice to controversial issues, with the intent of developing students' expertise in psychology. Prerequisites: PSY 211, 230, and 251, with at least a C grade in PSY 251. Annually.

- PSY 471:** *INTRODUCTION TO CLINICAL CHILD PSYCHOLOGY* **3 s.h.**
 Introduces clinical work with children. Includes major diagnostic categories and theories of etiology related to clinical problems in children, as well as an overview of evaluation methods and treatment modalities designed specifically for children. Covers professional issues and ethics related to child clinical psychology. Prerequisites: PSY 211 and 260; PSY 331 is recommended; (or approval of instructor). Annually.
- PSY 475:** *HEALTH PSYCHOLOGY* **3 s.h.**
 The area of psychology that is concerned with the interaction between biological, psychological, and social factors that influence people's health and susceptibility to illness. Discusses health promotion and illness prevention from a biopsychosocial perspective. Examines, extensively, the relationship between stress and illness, and discusses medical compliance, the Type A Behavior Pattern, and patient physician interactions. Prerequisite: PSY 211, 230 & 251, with at least a C grade in PSY 251. On demand.
- PSY 499:** *SUPERVISED FIELD EXPERIENCE* **3 s.h.**
 In consultation with the instructor prior to registration, students select a human or community service agency. Requires 10 hours per week. Students observe and experience skills needed in the helping professions. May be repeated once for credit but must be used under free electives the second time. Open to students in education, health, and human service programs. Prerequisites: Junior standing, PSY 211, and at least one of PSY 350, 380, 464, 467. Each semester.

Sociology and Social Work

Department of Sociology, Catherine Petrisans, Ph.D., Chair

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Professor: Reef;
Associate Professor: Petrisans

The field of sociology explores the social and cultural influences on social behavior, the dynamics of social interaction and inequality, social institutions, change, and social problems. The sociology major is beneficial to anyone who is interested in working closely with people and, in this sense, career possibilities are practically unlimited. Types of entry-level jobs available to graduates in sociology include: social service agencies, community organizations, and government agencies, as well as business. Sociology also teaches skills that are beneficial and related to further studies in law, criminology, teaching, social work, and business.

The sociology program provides students with knowledge in areas such as theory, research methods, inequality, family, social problems, deviance, and conflict resolution. The interdisciplinary nature of our department offers students

the unique opportunity of taking social work classes as part of the sociology degree. We offer students a Bachelor of Arts in Sociology, as well as minors in sociology and social work. Internships are required of all social work minors and highly recommended for all sociology majors and minors. Professional organizations for majors include Alpha Kappa Delta, a national sociology honorary society and the Sociology/Social Work Club.

- SOCIOLOGY, B.A.**52-53 credits
Required: SOC 211, 310, 450, and 24 additional credits in sociology, up to 12 credits in social work courses can be counted toward the major and chosen in consultation with a departmental advisor. In addition, the following courses are required: ANTH 211, HIST 113, PSY 211, PS 211, either ECON 211 or 212, ECON 221 or MATH 221 or PSY 230. Students must demonstrate competence in either a foreign language or computer science (CIS110, 202, 217, 301).
- SOCIOLOGY, MINOR**18-19 credits
Required: 18 credits, SOC 211 and five other sociology courses (three of which must be at 300 or 400 level).
- SOCIAL WORK, MINOR**18 credits
Required: SW 211, 212 and SW/SOC 499. Additional required courses (six credits from the following) SW 225; SOC 318, 340, 351, 352, 361, 362, and SW/SOC 499 (may take an additional three credits beyond the required three credits).

Sociology Courses

- SOC 211:** *PRINCIPLES OF SOCIOLOGY* **3 s.h.**
 Introduces the nature and characteristics of human societies, the structure and processes of social life, the impact of social forces on personal and group behavior, and the interdependence of society and the individual. Each semester.
- SOC 216/ANTH 216:** *WOMEN AND CULTURE* **3 s.h.**
 Introduces the study of the lives of women in cross-cultural perspective. Explores gender issues including sexual division of labor,
- SOC 236/CRJT 235:** *CRIMINOLOGY*
 Examines historical and contemporary attempts to explain the origins of criminal behavior and society's reaction to it from a variety of perspectives. Provides students with an understanding of how these theories have influenced the present criminal justice system. Annually.
- GERO/PSY/SOC 253:** *INTRODUCTION TO GERONTOLOGY* **3 s.h.**
 Provides general introduction to social gerontology. Emphasizes the typical aspects of aging. Reviews current hypotheses and findings concerning aging processes. No prerequisite. Annually.
- SOC 310:** *CLASSICAL SOCIOLOGICAL THEORY* **3 s.h.**
 Acquaints students with the thoughts of sociologists who have made major contributions to the founding of the discipline and whose work continues to be relevant today. Prerequisite: SOC 211 or permission of the instructor. Fall, annually.

SOC 400: INDEPENDENT STUDY IN SOCIOLOGY

Concentrated exploration and study of a problem or area of sociology not covered by existing courses and in accord with the student's interest and needs and under the direction of department faculty member. Prior to enrolling, students are required to submit a written proposal outlining their plan of study for the instructor with whom they will be working. Enrollment limited to juniors and seniors with consent of the instructor. Maximum number of credits in SOC 400 is limited to nine.

SOC 410: THE SOCIOLOGY OF SPORT

The perspective of this course is that sport is a socially constructed concept. Students engage in the analysis of sport as a contemporary social institution. Class participants, following the sociological tradition, detect, measure, and explain the reciprocal impact of sport with other institutions such as the family, education, and the economy. For example, sport as presently constituted, has numerous economic aspects; it is a form of work for many people. Examination of sport is based on the structural functionalist, social conflict, and symbolic interactionist paradigms of sociology. Prerequisite: SOC 211 or permission of instructor. Every third semester.

SOC 450: RESEARCH METHODS**4 s.h.**

Fundamentals of the research process and methods, including research design, interview and questionnaire construction, sampling methodology, basic descriptive and inferential statistics, data collection, statistical analysis, interpretation, and presentation. Prerequisites: SOC 211; 3 hours in statistics or permission of the instructor. On demand.

SOC 452: SEX, GENDER, AND SOCIALIZATION**3 s.h.**

Investigates the social consequences of the cultural universal that all societies categorize their members according to sex. Focuses on the learning, maintaining, and changing of gender roles in various institutional settings, especially the family, education, religion, politics, and work. Prerequisite: SOC 211.

SOC/SW 499: SUPERVISED FIELD PLACEMENT**3 s.h.**

With the approval and under the supervision of a member of the sociology faculty or social work faculty, students are placed in field-work settings, e.g., child welfare agencies, offices of aging, divisions of the criminal justice system, community development agencies, etc., where they will observe and work with persons responsible for carrying out a range of specific human services. Requires a 10-hour commitment each week. May be repeated once for credit. Prerequisites: Permission of instructor, junior standing, and six hours in sociology.

Social Work Courses**SW 211: PRINCIPLES OF SOCIAL WORK****3 s.h.**

Overview of social work as a profession with an introduction to social work with individuals, groups, families, and communities. Students examine a basic set of concepts, principles, and elements of practice. Fall, annually.

SW 212: SOCIAL WORK WITH GROUPS**3 s.h.**

A study of the practice of group work, group dynamics and the use of various types of groups in social work settings. Spring, annually.

SW 225: SOCIAL WORK WITH CHILDREN AND YOUTH**3 s.h.**

The study of social work approaches to prevention, intervention, and treatment of problems facing families and children. Examines concepts, policies, and practice issues in the field of child and family welfare. Fall, annually.

SW 350: GERONTOLOGY SOCIAL WORK PRACTICE**3 s.h.**

Concepts, policies, and practice issues in social work with older adults. Examines methods of intervention, social service delivery systems, and the special needs of diverse older populations. On demand.

SW 354: SPECIAL TOPICS IN SOCIAL WORK**3 s.h.**

Offered occasionally.

SW/SOC 499: SUPERVISED FIELD PLACEMENT**3 s.h.**

With the approval and under the supervision of a member of the sociology faculty, students are placed in field-work settings, e.g., child welfare agencies, offices of aging, divisions of the criminal justice system, community development agencies, etc., where they will observe and work with persons responsible for carrying out a range of specific human services. Requires a 10-hour commitment each week. May be repeated once for credit. Prerequisites: Permission of instructor, junior standing, and six hours in sociology.

Spanish

SPANISH, B.A. SEE MODERN LANGUAGES AND CULTURES.



Theatre

Department of Theatre,

Robert G. Levy, M.F.A., Chair

149 Marwick-Boyd Fine Arts Building

Telephone: 814-393-2283

Website: www.clarion.edu/theatre

Professor: Michel

Associate Professor: Powers

Assistant Professors: R. Bullington, Levy

Instructors: Powell, Holland

The Department of Theatre at Clarion University is an undergraduate program offering both the Bachelor of Arts and Bachelor of Fine Arts degrees. The program provides classroom and practical experience that enriches the lives of students and produces live theatre that enhances the cultural life of the university and the surrounding community. Education takes place not only in the classroom but also in theatrical laboratories and the world at large. Practical experience through dynamic and ambitious theatrical productions supplement classroom training. Many graduates are currently working in professional theatres.

Minor programs in theatre with concentration areas of acting and technical theatre are available to students regardless of major. Participation in most departmental performance activities is open to all students regardless of major.

The Bachelor of Fine Arts degree is open only to students through prepared audition or portfolio review. Dates for these auditions are scheduled each semester. Contact the Department of Theatre for more information.

THEATRE, B.A. 72 credits

Required: five courses to be taken from HIST 111, 112, 113; CMST 113, 120, 121; Required courses: THE 104, 161, 253, 254, 352, 359, 360; nine credits chosen from 120, 154, 155, 201, 204, 215, 251, 301, 302, 304, 310, 311, 321, 350 or 351, 356, 361, 368, 369, 370, 461; nine credits chosen from THE 257, 260, 261, 262, 271, 362, 363, 364, 365, 366, 367, 371; nine credits selected from ENG 140, 342, 343, 344, 345, 412, 413.

THEATRE, B.F.A. 72 credits

(1) **Concentration in Acting: Required:** THE 104, 155, 161, 201, 204, 251, 253, 254, 352, 359, 360, 361, 363, 368, 369, 370, 403, 461, ENG 140; three credits selected from THE 262, 364, 367; and three credits from ENG 344, 345, 412, 413; nine credits chosen from COOP 384, 484, THE 120, 261, 262, 271, 301, 310, 311, 321, 350, or 351, 352, 356, 364, 366, 367, 371, ENG 254, 342, 343, 344, 345, 412, 413, and MUS 131. Also required are an audition, eight non-credit production labs, and an approved Graduation Project.

(2) **Concentration in Musical Theatre: Required:** THE 103, 104, 201, 204, 253, 254, 301, 310, 311, 312, 350, 351, 359, 360, 361, 363, 368, 403, 461, MUS 125, 128, 129, 131, 160, 161, 182, MUSA 126/226; a combination of four credits from the following: MUSA 130/330, 131/132 or 331 and three credits from THE 161, 261, 262, 271, 302, 304, 352, 356, 363, 366, 367, 370, 371, 490, COOP 384, 484. Also required are an audition, eight non-credit production labs, and an approved Graduation Project.

(3) **Concentration in Technical Theatre: Required:** THE 104, 161, 253, 254, 261, 262, 350, 351, 352, 359, 360, 362, 363, 364, 366, 367, 371, 404, CMST 120 or 121, CMST 113; (Design Track) nine credits chosen from ART 121, 122, 125, 126, 222, THE 271, and six credits chosen from ART 211 and ART 212; (Stage Management Track) nine credits chosen from MMAJ 101, CMST 214, 216, 200, 300, 312; and six

credits from ENG 207 and ACTG 201; Also required are an audition, eight non-credit production labs, and an approved Graduation Project.

(4) Selection/Retention Standards for B.F.A./theatre majors:

Students must demonstrate potential for excellence in acting or technical design by means of an audition and/or a portfolio of designs and audition for acceptance into the degree no later than the end of their second semester in the program.

After completing a total of 60 credit hours, or prior to entering their junior year, B.F.A. students must appear before the theatre staff and demonstrate the following: a minimum 2.50 QPA in at least 12 credits within the required core curriculum and a written statement of career goals. At the time of this review, the theatre staff will inform the B.F.A./theatre student of any program deficiencies and specify a time limit for removing the deficiencies. Students who fail to meet the retention standard will be dropped from the B.F.A./theatre program. Students may appeal the decision of the theatre staff through the appropriate channels: department chair, dean, and vice president for academic affairs.

All B.F.A. candidates must complete a graduation project. The project is assigned by the faculty, or approved by the faculty if it involves an off-campus internship, and must be completed during the student's last three semesters. Students must register for THE 403, 404, or 495 and work under the supervision of a project advisor. The goal of the B.F.A. graduation project is to provide evidence of critical thinking, enthusiasm for process, and a deep understanding of the student's work in their specific area of concentration.

THEATRE: ACTING, MINOR 18 credits
Required: THE 253, 254; nine credits selected from THE 155, 204, 251, 352, 361, and the capstone course of either THE 359 or 360. Complete two non-credit production practica.
THEATRE: TECHNICAL, MINOR 18 credits
Required: THE 253, 262; nine credits selected from THE 261, 362, 364, 366, 367; THE 359 as the capstone course.

Theatre Courses

- THE 103:** *THEATRICAL PERFORMANCE* **1-3 s.h.**
 Students earn one to three credits through performance in University Theatre productions by successfully completing the terms of the "Contract for Credit in THE Activities," subject to approval by instructor and department chair. No more than three credits may be earned in THE 103 during any one semester. Students may not enroll concurrently in THE 103 and 254, 350, or 361 without instructor permission. Each semester.
- THE 104:** *THEATRICAL PRODUCTION* **1-3 s.h.**
 Students earn one to three credits construction lab in the scene shop and costume shop. Credits will be earned successfully completing the terms of the "Contract for Credit in THE Activities," subject to approval by instructor and department chair. No more than three credits may be earned in THE 104. Is a requirement for all B.F.A. theatre majors. Each semester.
- THE 120:** *THEATRE PLAY PRODUCTION* **3 s.h.**
 Introduces elements of theatre as selected topics, including directing, acting, make-up, criticism, stagecraft, and stage lighting. Practical experience is gained by student's participation in the summer theatre productions. No prerequisites. Summer, annually.
- THE 154/**
MUSA 132/332: *SHOW CHOIR* **0-1 s.h.**
 May be taken for one credit or for no credit. Credit may not be counted among the humanities in general education but may be counted under personal development and life skills and under free electives, with no more than five of these credits counted for graduation. Open to all students by audition only. Spring Semester.
- THE/CMST 155:** *INTERPRETATION I* **3 s.h.**
 Develops expressive presentational skills through practice in the oral interpretation of literature. Focuses on analyzing an author's meaning, responding to it, communicating the meaning to an audience, and correlating oral interpretation with other arts. Fall, annually.
- THE 161:** *STAGECRAFT* **3 s.h.**
 A study of the theory, materials, and practice of stage construction. Emphasizes technical instruction and the relationship between the dramatic function of the setting and its actual physical realization. Student projects and required production labs provide practical experience. Fall, annually.
- THE 201:** *DANCE I* **3 s.h.**
 Focuses on alignment, strength, flexibility, balance, and locomotor movement. Surveys jazz, ballet, modern, and tap dance styles. For actors: a working knowledge of dance styles for performance and auditions. For everyone: an exploration of personal movement potential and an appreciation for the art of dance. Fall, annually.
- THE 204:** *MOVEMENT FOR THE ACTOR* **1-6 s.h.**
 Designed to give student performers the tools for developing characters, and to develop a vocabulary with which to communicate with directors and movement coaches from a variety of backgrounds. Instruction focuses on building physical presence and body awareness, increasing flexibility and range of motion, and developing control necessary for efficient and communicative movement in a variety of theatre styles. Fall, even-numbered years.
- THE 215:** *SPECIAL TOPICS IN THEATRE* **1-6 s.h.**
 Focuses on offering special topics reflecting the interest of students. Content varies from semester to semester. Suitable for both majors and non-majors in theatre. May be taken for a maximum of nine credits in the major. On demand.
- THE/CMST 251:** *VOICE AND ARTICULATION* **3 s.h.**
 Helps students improve their speech by the elimination of faulty voice and articulation habits. Gives attention to basic skills, including vocal variety, projection, breath control, tonal production, and articulation. Focuses on both the technical production of speech sounds and the student's ability to communicate. Each semester.

- THE 253:** *INTRODUCTION TO THE THEATRE* **3 s.h.**
 Explores the techniques of the contemporary and historical theatre in the organization of dramatic material. Surveys the division of creativity and labor in the presentation of dramatic material. Analyzes literary concepts and the growth of sub genres to motivate the contemporary audience. Each semester.
- THE 254:** *ACTING I : INTRODUCTION TO ACTING* **3 s.h.**
 A beginning acting course. Familiarizes students with the skills and tools required of today's professional actors. Suitable general elective for non-theatre majors. Fall, annually.
- THE 261:** *DRAFTING AND RENDERING FOR THE THEATRE* **3 s.h.**
 A practical study of the standard techniques used in drafting and rendering to convey textual information for design and construction of theatrical set designs, lighting designs, and costume designs. Prerequisite: THE 161. Limited to theatre majors or minors, or consent of instructor. Spring, odd-numbered years.
- THE 262:** *STAGE LIGHTING* **3 s.h.**
 Introduces the theory and practice of theatre lighting. Examines the purpose and aesthetics of lighting for the theatre and allied fields of television, film, and concerts. Also examines mechanics and control, including sections on optics, electrical theory, and color. Student projects and required production labs provide practical experience in stage lighting. Prerequisite: THE 161. Limited to theatre majors or minors, or consent of instructor.
- THE 271:** *COSTUME CONSTRUCTION* **3 s.h.**
 Explores the basic aspects of costume construction for the stage, including basic pattern generation, sewing, and fitting. Fall, odd numbered years.
- THE 301:** *MUSICAL THEATRE DANCE TECHNIQUES I* **3 s.h.**
 A practical and historical study of Broadway dance styles. Emphasis is placed on the relationship between dance in musical theatre and the 20th century popular social dance forms traced from minstrelsy and vaudeville to the present day. The stylization of these forms is stressed through original musical theatre choreography from each decade. The main focus is in the jazz idiom; however, strong ballet and tap skills are required. Prerequisite: Dance I or permission of instructor. Spring, annually.
- THE 302:** *INTRODUCTION TO CHOREOGRAPHY* **3 s.h.**
 Introduces dance composition, emphasizing spatial design, sources of movement, and exploring the basic elements of space, time, and energy through improvisation, short movement studies, and dances which are presented, discussed, and reworked in class. Prerequisite: THE 301.
- THE 304:** *DANCE REPERTORY* **3 s.h.**
 Provides students with the opportunity to learn and perform a complete dance choreographed in class by the instructor. Students gain experience as performers in an intensive company-workshop atmosphere and learn how an experienced choreographer uses skills of dance composition and the strengths of the dancers to choreograph a new work. The finished dance is performed in class and as part of a student dance concert on campus. Prerequisite: THE 301 or 302, or by auditioning and permission of instructor.
- THE 310:** *ACTING THE SONG* **s.h.**
 Provides advanced work in character analysis and text analysis through materials that are entirely sung. Explores songs as monologues, discovering where they can utilize and capitalize on previous training while developing new techniques unique to acting in musicals. A variety of musical theatre genres are explored as well as the historical significance of the musical theatre. Prerequisites: THE 254, MUS 126, 128. Fall, odd-numbered years.
- THE 311:** *MUSICAL THEATRE DANCE TECHNIQUES II* **3 s.h.**
 This course is a continuing study of Broadway dance styles with the emphasis on significant choreographers and their work in 20th century musical theatre to the present day. Technique and performance quality is stressed through the understanding and execution of the movement qualities used by historical and current musical theatre choreographers. The main focus is in the jazz idiom; however, strong ballet and tap skills are required. Prerequisite: Dance I or permission of instructor. Spring, as needed.
- THE 321:** *MUSICAL THEATRE DANCE TECHNIQUES III* **3 s.h.**
 This course is a continuing study of Broadway dance styles. Emphasis is placed on the tap and modern work in musical theatre as well as dance auditioning skills. Technique and performance quality is stressed through the understanding and execution of the movement qualities desired in musical theatre dance auditions. Broadway tap, and modern dance, as it is applied to musical theatre, will be explored in greater depth. Prerequisite: Dance I or permission of instructor. Spring, as needed.
- THE 333:** *YOGA FOR ACTORS* **3 s.h.**
 Explores the concepts and precepts of yoga in the context of the actor's craft. Students will focus on Hatha yoga (the postures) as well as other aspects of the ancient art and science of yoga that are directly applicable to the process of developing a character. Instruction focuses on physical alignment, flexibility and strength, mental focus and discipline, breathing and its relation to the actor's vocal instrument.
- THE 350:** *SUMMER DRAMA WORKSHOP* **3 or 6 s.h.**
 Combines study and practice in the dramatic arts and includes formal, intensive study of topics in acting, play production, direction, makeup, scene design, stage lighting, and stagecraft. In conjunction with the workshop, Clarion University sponsors a Summer Theatre Company consisting of members of the workshop, which produces major shows. Summer, annually.
- THE 351:** *ADVANCED THEATRE PRODUCTION* **3 or 6 s.h.**
 Advanced study and practice in the dramatic arts, including topics in scene design, theatre management, and acting. Students work with members of the Summer Drama Workshop in the production of major plays for the Clarion Summer Theatre. Prerequisite: THE 120 or 350. Summer, annually.
- THE 352:** *PLAY DIRECTING* **3 s.h.**
 A study of the fundamentals and procedures of play directing and problems faced in educational theatre. Includes script analysis, casting, and rehearsal methods. Students direct one-act plays for public presentation. Prerequisite: THE 253, 254, 362, or permission of instructor. Fall, even-numbered years.

- THE 356:** *PLAYWRITING AND SCRIPT CONSTRUCTION* **3 s.h.**
Introduces the art of the playwright and dramatic storytelling from plot construction to dialogue construction and addressing the needs of production in readings and exercises. Culminates with the crafting of a 10-minute play. Prerequisites: THE 253, 254, or 161, or permission of instructor. Spring, even-numbered years.
- THE 359:** *HISTORY OF THE THEATRE I* **3 s.h.**
Explores plays and playwrights from Antiquity to the Baroque. Prerequisites: THE 253, 254, or permission of instructor. Fall, annually.
- THE 360:** *HISTORY OF THE THEATRE II* **3 s.h.**
Explores plays and playwrights from the Romantic Period to Post-Modernism. Prerequisites: THE 253, 254, or permission of the instructor. Spring, annually.
- THE 361:** *ACTING II: SCENE STUDY* **3 s.h.**
Further applications of the basic groundwork laid in Acting I. Students work in pairs or groups on scenes from published plays in order to sharpen their skills in character analysis, characterization, and truthful playing for the stage. May be taken as an elective but is designed for majors and serious students of acting. Prerequisite: CMST 254. Limited to theatre majors or minors, or consent of instructor. Fall, even-numbered years.
- THE 362:** *SET DESIGN* **3 s.h.**
Study and practice in the aesthetics, methods, and techniques of scenic design, utilizing epic and Stanislavskian scenographic analysis. Prerequisite: CMST/THE 161. Limited to theatre majors or minors, or consent of instructor. Spring, odd-numbered years.
- THE 363:** *THEATRICAL MAKE – UP* **3 s.h.**
Acquaints the student with the basic principles and application of the art and technique of theatrical makeup. Spring, odd-numbered years.
- THE 364:** *SCENE PAINTING FOR STAGE* **3 s.h.**
Studio instruction in the use of brushwork and pigment to develop landscape, ornament, paneling, and architectural detail in stage scenery based on the analysis of form and source of light. Limited to theatre majors or minors, or consent of instructor. Fall, even-numbered years.
- THE 366:** *PRODUCTION AND STAGE MANAGEMENT* **3 s.h.**
A study of theory and practice of production and stage management in the professional, community, and educational theatre environments, including the theatrical organization, rehearsal procedures, and performance duties. Limited to theatre majors or minors, or consent of instructor. Spring, even-numbered years.
- THE 367:** *THEATRICAL COSTUMING* **3 s.h.**
Familiarizes the student with the process of designing theatrical costumes. Includes costume history, fashion trends and rationales. Student projects and a required lab provide experience in the craft. Fall, even-numbered years.
- THE 368:** *PROFESSIONAL PRACTICES : THE AUDITION PROCESS* **3 s.h.**
Concentrates on the preparation and practices of talent in an audition situation. Emphasizes presentation for both prepared and cold audition situations and familiarity with the business aspects that are part of the auditioning process. Limited to acting students in the B.F.A. program, or by instructor's consent. Fall, even-numbered years.
- THE 369:** *PLAYING SHAKESPEARE* **3 s.h.**
Introduces the advanced acting student to an approach to Shakespeare's texts which requires an open and personal commitment to thought, language, and movement. Prerequisite: THE 361 or 254. Limited to theatre majors or minors, or consent of instructor. Spring, even-numbered years.
- THE 370:** *STAGE DIALECTS* **3 s.h.**
Students learn, practice and perform in five commonly used stage dialects: Standard British, Cockney, Irish, Scottish, and Standard American Southern. Uses the International Phonetic Alphabet as a means to understanding the changes in certain key phonemes in each dialect. Utilizes films or videotapes of natural speakers when possible to help familiarize students with the lilt and musicality of each dialect. Students perform both monologues and scenes over the course of the semester. Prerequisites: THE 251 and 361, or 254 with permission of instructor. Spring, odd-numbered years.
- THE 371:** *SOUND DESIGN FOR THE THEATRE* **3 s.h.**
Introduces the art of sound design to the theatre student from script analysis to technical production and implementation of sound equipment. Prerequisite: THE 161. Limited to theatre majors or minors, or consent of instructor. Fall, odd-numbered years.
- THE 403:** *GRADUATION PROJECT*
Directed research toward graduation project in acting or musical theatre.
- THE 404:** *GRADUATION PROJECT*
Directed research toward graduation project in design/technical production.
- THE 461:** *STYLES OF ACTING* **3 s.h.**
Through extensive research this course examines playing the character within the framework of historical style. Focuses on how to recognize style/period through research and the text and how to solve the problems of assuming and communicating style. Prerequisites: THE 254 and 361 or consent of instructor. Spring, odd-numbered years.
- THE 490:** *INDEPENDENT STUDY* **1-3 s.h.**
Selected topics for research and/or performance projects in speech communication and theatre. Prior to registration, students need to obtain an advisor who will direct their study. Approval by appropriate dean required.
- THE 495:** *INTERNSHIP IN SPEECH COMMUNICATION AND THEATRE* **1-12 s.h.**
The internship program gives the student the opportunity to apply classroom theory and techniques in business, government, theatre, and other cooperating organizations. Course open to any speech communication and theatre major with a junior or senior standing and consent of department. Student must have a 2.5 QPA or higher and 3.00 QPA in a major. On demand.

Women and Gender Studies Program

Deborah A. Burghardt, Ph.D., Director

210 Harvey Hall

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Website: www.clarion.edu/women

The Women and Gender Studies Program at Clarion University is an interdisciplinary community where students gain an understanding of gender issues across cultures. Our values include respect for diversity, open-mindedness, and self-exploration. We strive to cultivate supportive relationships between you and faculty, to make connections between personal experience and intellectual development, and to take action for social justice. Our programs enhance your preparation no matter what your major and we prepare you to be an involved, informed and empowered citizen.

Women and Gender Studies courses in humanities, education, business and social sciences promote peer interaction, knowledge application, and contribution to societal change. By studying knowledge about women and gender that in the past has been omitted, distorted, or minimized in the university curriculum, you learn to think critically and creatively. Outstanding professors from across disciplines teach students how to think locally and globally about the intersections of sex and gender with race, ethnicity, sexuality, class, ability, religion, age, and nationality.

With a minor or concentration in women and gender studies, you develop problem-solving and cross-cultural communication skills that are highly sought by employers and where women and girls or men and boys make up the majority of the customer base or clientele.



WOMEN AND GENDER STUDIES MINOR 18 credits

To earn a minor in women and gender studies, the student must complete 18 credits of women and gender studies courses, including WGS 100: Survey of Women Studies; WGS 490: Seminar in Women Studies; and at least six other credits at the 300-400 level. Twelve credits are to be selected from ANTH 216, 315; ART 216; ED/WGS 406; ENG 265, 365; GEOG 315; HIST 230; HPE 370; PHIL 357; PSY 220, 340, 390; CMST 281, 320; SOC311,352,362, 452; WGS 200, 300, 311.

Students enrolled in the liberal studies degree program may earn a concentration in women and gender studies by completing 21 credits of women and gender studies courses, including WGS 100: Survey of Women and Gender Studies; and at least nine other credits at the 300-400 level. Eighteen credits are to be selected from ANTH 216, 315; ART 216; ED/WGS 406; ENG 265, 365; GEOG 315; HIST 230; HPE 370; PHIL 357; PSY 220, 340, 390; CMST 281, 320; SOC311,352, 362, 452; WGS 200, 300, 311, 490.

Women and Gender Studies Courses

WGS 100: *SURVEY OF WOMEN AND GENDER STUDIES*

3 s.h.

Surveys women's studies topics offered in more advanced courses. Uses materials primarily from the social sciences to examine various topics from a feminist perspective. Examines diverse women's lives across the lifespan, feminist pedagogy, sex role socialization, women's relationships, women as students, and women and gender in society and history, among other topics. No prerequisite. Each semester.

WGS 200/300: *SPECIAL TOPICS IN WOMEN'S STUDIES*

1-4 s.h.

Focuses on themes and topics of contemporary and/or historical interest in the study of women and their contributions across the disciplines and in the culture at large. The special subjects of each semester's offerings will be announced in pre-registration. May be repeated with approval of the advisor, provided that different topics are offered. On demand.

WGS 311: *GENDER, VIOLENCE AND ACTIVISM*

3 s.h.

Explores the structural and cultural construction of violence and the forms it takes among men/boys, among women/girls and between men/boys and women/girls in the United States and world-wide. The effects of perpetrating and being the recipient of interpersonal violence and societal response to gender violence at the intersections of race, ethnicity, class and sexuality will be examined. Civic engagement and social activism for reducing and preventing violence at the individual, family, community and institutional levels will also be considered. Prerequisite: One course from among WGS 100, PSY 211 or SOC 211 or permission of instructor. Fall.

WGS /ED 406: *GENDER ISSUES IN EDUCATION*

3 s.h.

Examines the ways in which schools perpetuate gender bias and how educational institutions, as a reflection of the patriarchal society in which they coexist, provide different experiences and outcomes for female and male students and teachers. Prerequisite: WGS 100 or ED110 or permission of instructor. Spring.

WGS 490: *SEMINAR IN WOMEN AND GENDER STUDIES*

3 s.h.

Interdisciplinary seminar synthesizes knowledge and skills acquired in lower-division courses through a unifying theme. Broad theme offers a variety of dimensions for study and research. Prerequisites: Junior standing, WGS 100 plus nine additional hours of women and gender studies courses, or consent of instructor. On demand.



COLLEGE OF BUSINESS ADMINISTRATION

James G. Pesek, Ph.D., Dean

330 Still Hall

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Website: www.clarion.edu/COBA

Accreditations

AACSB International—The Association to Advance Collegiate Schools of Business

Clarion University's College of Business Administration is accredited by AACSB International. Fewer than 10 percent of the universities offering business administration and management education are AACSB International accredited. Clarion is the first university in the Pennsylvania State System of Higher Education to achieve AACSB International accreditation of all its business degree programs including the master's degree. The accreditation

provides external validation of the internationally competitive educational experience Clarion offers. This means that students, and the families that send them to Clarion, can be assured they are receiving solid business preparation that meets and exceeds international standards.

Association of Small Business Development Centers (ASBDC)

Approved and Registered Programs

The Paralegal Studies program is approved by the American Bar Association (ABA).

The Personal Financial Planning Program is registered with the Certified Financial Planning Board of Standards, Inc., as meeting the academic requirements necessary to qualify a student to sit for the CFP examination.

Degree Listing

Philosophy

The College of Business Administration (COBA) offers curricula leading to the degree of Bachelor of Science in Business Administration, Master of Business Administration, Associate of Science in Business Administration, and Associate of Science in Paralegal Studies degrees. The College of Business Administration also offers a minor program in business administration for non-business majors, and offers minors in economics, international business, and leadership for all majors. The description below is concerned mainly with the undergraduate curriculum. For full information concerning the M.B.A. program, refer to the *Graduate Catalog* and the M.B.A. website at www.clarion.edu/mba. The descriptions of the Associate of Science degree programs are found on page 184.

All candidates for the Bachelor of Science or Associate of Science degrees in business administration are required to take a broad program of business foundation subjects and then choose a business field of specialization in one of the following areas:

- Accounting (B.S.B.A.)
- Business Administration (A.S.)
- Business Economics (B.S.B.A.)
- Finance (B.S.B.A.)
- Industrial Relations (B.S.B.A.)
- International Business (B.S.B.A.)
- Paralegal Studies (A.S.)
- Management (B.S.B.A.)
- Marketing (B.S.B.A.)
- Real Estate (B.S.B.A.)

The curriculum leading to the degree of Bachelor of Science in Business Administration is designed to assist students in arriving at a better understanding of the complex relationships inherent in the rapidly changing domestic and international world of business, industry, and government; to provide educational experience that will help students develop their potential for leadership and service; to stimulate the growth of students as individuals and citizens; and to provide a qualitative environment in which educational enrichment can take place.

Supplemented by broad general requirements in the humanities, the social sciences, and the natural sciences, the business curriculum offers a well-balanced program of courses in business administration and economics which will not only help prepare students for careers in business, industry, and government, but also will give preparatory training to students who plan graduate study in business, economics, or law.

Although there is opportunity to develop depth in certain areas, i.e., accountancy, economics, finance, industrial relations, international business, management, marketing, and real estate, emphasis in the program is not on deep specialization but rather on the development of analytical ability, intellectual toughness, imagination, the ability to communicate ideas, and adaptability so that technological change does not render the education obsolete.

Mission Statement

The College of Business Administration at Clarion University of Pennsylvania is committed to preparing its students for success as ethical business leaders and professionals in a dynamic, complex global environment through high quality, challenging academic and related programs, while serving the academic and business communities through effective teaching, scholarly contributions, and appropriate service to the university and the region. (Revised 4/27/10)

Emphasis Statement

The faculty and staff of the College of Business Administration at Clarion University recognize that we exist, above all, to serve the students. We are dedicated to offering and delivering high quality undergraduate and graduate education that prepares the next generation of principled leaders and professionals in the areas of business, industry, and government. Both an undergraduate business education, with associate and bachelor's degrees, and a Master of Business Administration are administered through campuses in Clarion and Oil City, with a primary service area of western Pennsylvania. We strive for continuous improvement in all of our programs and curricula. This is accomplished through effective teaching and practical applications; technological literacy; research that is relevant to the learning mission of the university, including intellectual contributions that primarily advance practice and enhance disciplinary knowledge, but also improve learning and pedagogy; professional development activities; and service to the university and community. In addition, we exhibit leadership; develop strong partnerships with regional business, industry and government organizations; and promote a diverse student body and faculty. We recognize that we must foster a spirit of intellectual inquiry, equity, and tolerance in the classroom and workplace, and hold integrity as the cornerstone of our actions. (Revised 4/27/10)

Objectives of Degree Program

1. Ensure each student has a general education composed of liberal knowledge, skills, applications, values, health, and personal performance experiences.
2. Ensure each student has a thorough knowledge of fundamental business concepts of appropriate breadth and depth and has the opportunity to integrate business disciplinary knowledge.
3. Ensure each student has a thorough knowledge of concepts within a particular business specialty.
4. Ensure each student has a thorough knowledge of the international and ethical dimensions of business management.
5. Prepare undergraduate students for entry-level professional positions in business, industry, and government.
6. Provide opportunities for business study for non-business majors at Clarion University.
7. Prepare aspiring, high-achieving students for entry into graduate programs.
8. Provide a reasonable level of direct contact with businesses and organizations to enhance application of learned classroom concepts.

9. Ensure academic programs adapt to changing requirements in business professions, adapt to changing expectations of businesses and other employers, are current with national educational trends, and are reflective of educational debate within professional associations.

Academic Standards

Business students pursuing the B.S.B.A. must meet the requirements for admission to the college’s upper division. In addition, business administration students must meet graduation standards beyond general university requirements.

Students who are readmitted to the College of Business Administration after an absence of two years or more must meet all requirements of the college as of the date of readmission.

Students who transfer from other regionally accredited universities or colleges must have a minimum cumulative quality point average (QPA) of 2.50 in all previous course work to enter the COBA. The QPA requirement applies to all course work taken at all universities prior to attending Clarion University.

Clarion students transferring from majors outside the COBA must have earned a minimum cumulative QPA of 2.50 to enter the COBA. Clarion students who do not have a cumulative QPA of 2.50 at the time of the request for transfer into the COBA must have achieved a 2.50 QPA in their most recent 12 credits completed at Clarion University. For additional information, please see the college’s policy on QPA and Residency Requirements for Transfer Students.

Credits for courses completed at other universities or colleges may be transferable to Clarion University, but the grades and quality points are not. Therefore, grades earned in courses accepted by the College of Business Administration to satisfy requirements of the lower- or upper-division core will not be used in the computation of the QPAs required by the academic standards of the College of Business Administration.

1. Mathematics requirements: All students in the College of Business Administration are required to take MATH 131 and 232. For MATH 232, students may substitute MATH 260, 270, 271, or 272.
2. Separation of upper- and lower-division programs of study: All business students must meet the requirements for admission to the upper-division course of study in the College of Business Administration. The upper-division consists of all 300-level and above. No business student is permitted to take any 300- or 400-level courses in the College of Business Administration until the student has met the following requirements:
 - a. completed not less than 50 hours with a minimum 2.00/4.00 QPA;
 - b. completed mathematics requirements listed above;
 - c. completed CIS 217;
 - d. Completed all required courses in the business core with a 100 or 200 level designation (ECON 211, ECON 212, ACTG 251, ACTG 252, ECON 221, ECON 222, and BSAD 240) and MATH 131 and MATH 232 with a minimum QPA of 2.00/4.00.

Note: Eligible students may use ECON 215 in place of ECON 211 and ECON 212 and may use ECON 230 in place of ECON 221 and ECON 222.

Every business student must complete the courses in the upper-division business core (ECON 310, MGMT 320, MKTG 360, FIN 370, MGMT 425, and BSAD 490), with a minimum 2.00/4.00 QPA, in order to meet graduation requirements.

3. Courses within the major: In order to graduate, students must meet university requirements, the above standards, and achieve a minimum grade of C in each course presented as meeting the requirements for the major. There are 24 credits required of each business student to be placed in the “major area.” Either 18 or 21 of these credits must come from the specific area of concentration which has been declared by the student. A list of the requirements for each of the business majors is available in the College of Business Administration dean’s office. The other three (or six) credits necessary to complete the 24-credit requirement must be business electives at the 300/400 level or BSAD 241. Additionally, at least one business course with international content must be included within the 24-credit block of “major courses” and a minimum grade of C must be earned in this course.
4. Each business student must complete six credits in courses with international content. At least three of these must be business credits and must be included within the 24 credits which apply to the major area of concentration (as detailed in number three above). The additional three credits may be utilized to satisfy requirements in general education or free electives. Courses taken to satisfy this requirement are to be selected from the approved international course list. Students should see their advisor or may obtain a copy of this list from the College of Business Administration Dean’s Office, 340 Still Hall.
5. Business students are not permitted to take business courses for credit-no record.

General Education Requirements

The general education program required for all students in the university is presented on page 44. Students must satisfy general education requirements which include flagged courses in lower- and upper-division business courses and in the major area. Students are urged to consult with their advisor about general education requirements listed earlier in this catalog. Students majoring in business administration must include six credits in mathematics (at least MATH 131 and MATH 232 or its equivalent); three credits for CIS 217, in fulfilling general education or free elective requirements; and six credits in economics (ECON 211 and 212). The general education requirements are summarized as follows:

Liberal education skills	12 credits
Liberal knowledge:	
Physical and biological sciences	9 credits
Social and behavioral sciences.....	9 credits
Arts and humanities.....	9 credits
Health and personal performance	3 credits
General education electives	6 credits
TOTAL	48 credits

Business Foundation Requirements

Regardless of the major chosen, all students of business administration must take 33 hours of foundation subjects. These have been selected with the following primary objective in mind:

1. To give students an insight into the major functions of organizations, whether they be private business firms or local, state, or federal government agencies.
2. To give students an understanding of the major problems within organizations as they pursue their goals.
3. To assist students in using the insights and methods of the humanities, social sciences, and natural sciences to analyze and illuminate these problems. Each of the foundation subjects either deals with an important aspect of organization or provides a tool which can be used in attacking problems faced by individuals in organizations. The courses, as a whole, comprise a common body of knowledge in business and administration.
4. To provide students with an understanding of the domestic and worldwide environment of business.

The following foundation courses are required of all business administration students:

GENERAL EDUCATION

- ECON 211: Principles of Macroeconomics.....3 credits
 ECON 212: Principles of Microeconomics.....3 credits
 NOTE: ECON 215 (Principles of Economics) may be taken in place of ECON 211 and ECON 212 by undergraduate students enrolled in the Honors program or students with a 3.40 QPA or higher. ECON 215 is a four-credit course, therefore, students choosing this option will need to take an additional two credits as electives.

ACCOUNTING AND QUANTITATIVE

- ACTG 251: Financial Accounting.....3 credits
 ACTG 252: Managerial Accounting3 credits
 ECON 221: Economic and Business Statistics I.....3 credits
 ECON 222: Economic and Business Statistics II.....3 credits
 NOTE: ECON 230 (Economic and Business Statistics) may be taken in place of ECON 221 and ECON 222 by undergraduate students enrolled in the Honors program or students with a 3.40 QPA or higher. ECON 230 is a four-credit course, therefore, students choosing this option will need to take an additional two credits as electives.

ENVIRONMENTAL

- BSAD 240: Legal Environment I.....3 credits
 ECON 310: Intermediate Microeconomic Theory3 credits
 NOTE: ECON 212 is a prerequisite for ECON 310.

FUNCTIONS

- MGMT 320: Management Theory and Practice.....3 credits
 MKTG 360: Principles of Marketing.....3 credits
 FIN 370: Financial Management3 credits
 MGMT 425: Production Management3 credits

ADMINISTRATIVE PROCESS

- BSAD 490: Administrative Decision-Making.....3 credits

NOTE: MGMT 320, MKTG 360, and FIN 370 are prerequisites for BSAD 490.

TOTAL: 39 credits

Major Requirements

In addition to the general education and business foundation courses outlined above, all students studying business administration must build up a major consisting of at least 18 hours in one of the following areas:

- accounting, business economics, finance,
- industrial relations, international business,
- management, marketing, real estate

Twenty-four hours of business and economics electives are required for each major. Of these 24, at least 18 are specified for each major. All four-year business administration students must take a minimum of 15 of the 24 credits required for the majors at Clarion University. Courses necessary to complete the 24-credit requirement must be business electives at the 300-/400-level or BSAD 241. Specific course requirements for each of these majors are outlined under the five academic departments on the following pages. The international business course requirement specified in the academic standards may affect business elective course selections.

Accounting

Department of Accountancy, Kreag Danvers, Ph.D., Chair

334 Still Hall
 Telephone: 814-393-2628
 E-mail address: kdanvers@clarion.edu
 Website: www.clarion.edu/coba/accy

Professors: Danvers, Grecni, Oliver

Accounting is the theory and practice of organizing, maintaining, and auditing the financial records of an organization or an individual. There are three main types of accountants: management accountants, who handle records of the companies they work for; public accountants, who work for or own independent accounting firms; and not-for-profit accountants, who work for governmental agencies and some health care organizations. Full or part-time internships are available to qualified students. The department offers a graduate-level professional accountancy course of study within the M.B.A. program. Most graduates go directly into the field in the areas of public, corporate, or not-for-profit accounting.

ACCOUNTING , B.S.B.A.24 credits

Required: Intermediate Accounting (ACTG 350); Accounting for Equities (ACTG 351); Cost Accounting (ACTG 352); Federal Taxes (ACTG 353); Auditing (ACTG 354); and Advanced Accounting (ACTG 355). Three credits of accounting electives and three credits of accounting or business electives.

Accounting Courses

- ACTG 201: *INTRODUCTORY ACCOUNTING SURVEY*** **3 s.h.**
 Introduces accounting, the language of business. Emphasizes accounting terminology, concepts, and the interpretation and use of accounting information for decision-making. Designed for non-business freshman students only. May not be used to satisfy core or major requirements for degrees in business administration. Students who have passed ACTG 251 may not schedule this course. No prerequisite. Each semester.
- ACTG 251: *FINANCIAL ACCOUNTING*** **3 s.h.**
 Examines the principles and procedures for collecting, recording, summarizing, and reporting financial information. Prerequisite: Sophomore standing, only at Clarion Campus. Each semester. Fall, annually at Venango.
- ACTG 252: *MANAGERIAL ACCOUNTING*** **3 s.h.**
 Analyzes aspects of accounting that aid managers. Includes budgeting, cost behavior and systems, alternate choice decisions, international accounting aspects, and cash flow. Prerequisites: Sophomore standing only at Clarion Campus, and ACTG 251. Each semester. Spring, annually at Venango.
- ACTG 253: *FACTORY ACCOUNTING*** **3 s.h.**
 Presents fundamental accounting concepts and techniques applied in record keeping and accounting control of the production process. Prerequisite: ACTG 252. Venango only, on demand.
- ACTG 254: *PAYROLL ACCOUNTING*** **3 s.h.**
 Provides detailed coverage of payroll policy, records, wage calculation, deductions, and government reporting. Emphasizes tax form preparation. Prerequisite: ACTG 252. Venango only, on demand.
- ACTG 255: *FINANCIAL STATEMENT PREPARATION AND ANALYSIS*** **3 s.h.**
 Focuses on procedures for financial statement preparation and the use of accounting information as a basis for decision making by management, owners, creditors, and other users of financial statements. Prerequisite: ACTG 251. Venango only, on demand.
- ACTG 256: *INCOME TAX PROCEDURES AND FORMS*** **3 s.h.**
 Explains which types of income are taxable and which expenses are deductible. Covers both filling out and filing individual, partnership, and corporate tax returns. Prerequisite: ACTG 251. Venango only, on demand.
- ACTG 350: *INTERMEDIATE ACCOUNTING*** **3 s.h.**
 Explores accounting theory and practice. Includes accounting for current assets, investments, plant and equipment, and intangibles. Emphasizes developing the student's technical and problem-solving ability. Prerequisite: ACTG 252. Each semester.
- ACTG 351: *ACCOUNTING FOR EQUITIES*** **3 s.h.**
 Examines accounting theory and practice. Includes accounting for current and long-term liabilities, corporate equity, pension plans, long-term leases, income taxes, accounting changes, and cash flows. Emphasizes developing the student's technical and problem-solving ability. Prerequisite: ACTG 350 or consent of instructor. Each semester.
- ACTG 352: *COST ACCOUNTING*** **3 s.h.**
 Analyzes cost principles, procedures, systems, controls, and analysis. Considers standard cost systems with the two basic cost accounting systems. Stresses cost accounting as a "tool" for management decision-making based on management information systems. Includes flexible budgets, accounting for by-products and joint products, transfer pricing, and environmental costs. Prerequisite: ACTG 252. Each semester.
- ACTG 353: *FEDERAL TAXES*** **3 s.h.**
 Examines federal income, estate, and gift taxation. Considers problems of compliance with the law by individuals, partnerships, corporations, estates, and trusts. Prerequisite: ACTG 252. Each semester.
- ACTG 354: *AUDITING*** **3 s.h.**
 A study of the purposes, the ethical and legal environment, financial analysis, and selected auditing techniques and procedures. Emphasizes developing the student's technical writing ability. Prerequisite: ACTG 351. Each semester.
- ACTG 355: *ADVANCED ACCOUNTING*** **3 s.h.**
 Considers modern development in accounting, including recent studies and pronouncements by accounting authorities such as the American Institute of Certified Public Accountants and the Securities and Exchange Commission. Analyzes the problems of accounting for consolidation and partnership equity. Emphasizes developing the student's technical and problem-solving abilities. Prerequisite: ACTG 351. Each semester.
- ACTG 451: *ACCOUNTING PROBLEMS*** **3 s.h.**
 A problem-oriented study of topics most often tested on the CPA exam. Includes inventory methods, long-term contracts, partnership, leases, consignments, installment sales, receivership, fiduciary accounting, and governmental accounting. Emphasizes preparations for the practice portion of the CPA exam. Prerequisite: ACTG 355. On demand.
- ACTG 452: *ADVANCED COST ACCOUNTING*** **3 s.h.**
 A study of advanced concepts of cost accounting to provide useful quantitative information for decision-making. Includes inventory valuation, cost allocations, joint-product costs, process costing, accounting systems, profit center costs, and segment performance measuring. Prerequisite: ACTG 352. On demand.
- ACTG 453: *PROBLEMS IN FEDERAL TAXATION ACCOUNTING*** **3 s.h.**
 Examines federal income tax concepts and compliance problems of partnerships, corporations, estates, and trusts. Briefly considers Social Security, estate, and gift taxation. Prerequisite: ACTG 353. On demand.
- ACTG 454: *COMPARATIVE ACCOUNTING SYSTEMS*** **3 s.h.**
 Helps students develop a holistic approach to the concepts and practices for the examination and exploration of accounting systems. Discusses specialized accounting systems in detail, depending upon the interest and desires of students. Prerequisites: ACTG 251, 252, 350, 351, 354, CIS 223, and 301. On demand.

ACTG 455: NOT-FOR-PROFIT ENTITIES**3 s.h.**

A study of the principles and practices of budgeting and accounting for activities of entities that are operated for purposes other than making profits. Prerequisite: ACTG 351. On demand.

ACTG 461: INTERNATIONAL ACCOUNTING**3 s.h.**

Studies the influence of cultural values on the practice and theory of accounting and developing sensitivity to the differences and similarities of different accounting systems. Includes consolidation, translation of foreign currency statements, inflation, replacement cost accounting of global-oriented corporations, and harmonization of accounting standards. Prerequisite: ACTG 252. On demand.

ACTG/FIN 463: TAX PLANNING**3 s.h.**

A survey course to acquaint students with tax planning techniques which can be used to accomplish an individual's financial goals. An understanding of financial position, cash flow and income, gift and estate tax matters enables the student to suggest actions that fit the individual's financial priorities. Prerequisite: ACTG 353. On demand.

ACTG 490: CURRENT ACCOUNTING PRONOUNCEMENTS AND PRACTICES**3 s.h.**

A research study of current Financial Accounting Standards Board statements of standards, interpretations, concepts, exposure drafts, and discussion memorandums. The internship experience and related research topics will be presented, discussed, and integrated with the pronouncements. Prerequisite: COOP 420, Accounting Internship. On demand.

ACTG 499: SPECIAL TOPICS IN ACCOUNTING**3 s.h.**

Presents various current topics affecting accounting practice and theory. Covers different topics from year to year as subjects of importance are identified. Prerequisite: ACTG 351 or consent of instructor. On demand.

Economics

Department of Economics, Rod D. Raehsler, Ph.D., Chair

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Professors: Balough, Raehsler, Sanders, Sohng, Stine, Trejos,
C. Yang

Associate Professors: L. Smith, Woodburne

Economics studies how our society organizes natural resources, labor, productive assets, and human ingenuity to produce goods and services. It studies the decisions of individuals, governments and business firms, as they attempt to use their scarce resources in the most efficient way.

Clarion's Bachelor of Science in Business Administration (B.S.B.A.) in Economics provides a variety of business skills. It combines economics courses with other beginning and advanced business courses. The following five program tracks have been designated: monetary economics, quantitative economics, international economics, urban and public affairs, and general economics. Students select the track that is consistent with their interests and personal goals. Students from this program have been successful in graduate school, and in a range of careers immediately after graduation. A number of positions are open to economics graduates. A minor in economics is also offered, which complements most business majors.

The Economics Department at Clarion has an exceptionally high Ph.D. coverage, and its low student-faculty ratio for majors promotes high-quality instruction and personal attention. Economics is organized within the College of Business Administration, whose elite AACSB accreditation guarantees exceptional preparation in both economics and related subjects. Internships tailored to students' specific requirements can be arranged with banks, businesses, and other institutions. Located in Still Hall, the department has excellent classroom and computer

facilities. Within individual courses, students are introduced to simulation and calculation on computers using a variety of software packages and databases, including a number developed specifically for economics classes at Clarion University.

Associated with the Economics Department are the Political Economy Club and the Omega chapter of Omicron Delta Epsilon, the international honor society in Economics.

In addition to the business economics major listed below, the department offers students a major in economics in the Bachelor of Arts program of the College of Arts and Sciences.

BUSINESS ECONOMICS (B.S.B.A.) 24 credits

Required: ECON 311, six credits in 300- or 400-level elective courses in economics or other business courses (may include BSAD 241), 15 credits in economics from one of the following tracks:

MONETARY ECONOMICS TRACK 15 credits

Required: ECON 361, 370, 371. Two additional economics courses or one economics course and FIN 476.

QUANTITATIVE ECONOMICS TRACK 15 credits

Required: ECON 309, 323, 470 and two additional economics courses.

INTERNATIONAL ECONOMICS TRACK 15 credits

Required: Three of the following four: ECON 312, 361, 363, 461. Any two additional economics courses or any one additional economics course and MGMT 426.

URBAN AND PUBLIC AFFAIRS TRACK 15 credits

Required: ECON 314, 342, 351. Two additional economics courses or one additional economics course and PS 375.

GENERAL ECONOMICS TRACK 15 credits

Required: Five courses in economics to be selected in consultation with and approved by the student's advisor.

ECONOMICS (MINOR) 18 credits

The minor in economics is available to students with any major from any college, including those in the College of Business Administration.

Required: ECON 211, 212, 310, 311. Six additional credits in 300- or 400-level economics courses selected in consultation with the student's minor advisor.

International Business

International Business is a multidisciplinary major within the Bachelor of Science in Business Administration (B.S.B.A.) degree that enhances the student's knowledge of the international environment within which United States and multinational businesses operate.

The major not only adds courses in international business and economics to the basic business administration core, but also includes international cultural coursework, language competency, and international experience requirements.

Clarion's international business major provides a curriculum that helps prepare students for careers in business, industry, and government in paths such as international securities analysis, economic development, global marketing, multinational finance, management of global enterprises, and many more. It also develops the skills needed for effective interaction with foreign businesses and government officials. Many of our faculty members travel regularly internationally to teach or consult including teaching in Russia and China and bring the benefit of their expertise to the students in our program.

The international experience requirement for the major can be met in one of several ways. Our international travel and student exchange experiences regularly send students to approximately eight countries each year. Internship opportunities exist for international business students in France, Ecuador, and Germany. The International Business Program coordinator works with every international business student on an individual basis to provide the type

of international experience that is best suited for that student, including students with proficiencies in languages other than the main languages offered at Clarion University.

A minor in international business is also available to complement any major.

INTERNATIONAL BUSINESS (B.S.B.A) 24 credits

Required: ECON 361, MGMT 426, select six to nine credits from the following: ACTG 461, FIN 480, MKTG 469, select three to six credits (for a total of 18 credits in business administration courses): BSAD 341, ECON 312, ECON 363, ECON 461, select six credits from the department's international cultural course list. **Foreign experience requirement:** Students may meet this requirement in a variety of ways, including completing BSAD 437, COOP 321/421, interning with a foreign or international firm, completing a foreign study abroad experience, or other qualified experience. Students who opt for an internship in a foreign country are advised to take a commercial language course and should be Level II proficient in that language. **Modern language requirement:** Students must show competency in a language other than English. This will be accomplished by passing a nationally-recognized language proficiency exam at Level I as a minimum in any language covered by that examination or completing six credits of a foreign language at the 200 level or higher.

INTERNATIONAL BUSINESS, MINOR 18 credits

Required: Students must complete 12-15 credits of upper-division international business courses from among the following: ACTG 461, BSAD 341, ECON 312, ECON 361, ECON 363, ECON 461, FIN 480, MGMT 426, MKTG 469. Students must complete 3-6 credits from the following: BSAD 437, COOP 321/421, study abroad, or a foreign language.

Economics Courses

ECON/GS 140: CONSUMER ECONOMICS

3 s.h.

Major aspects of personal financial management, including budgeting of income and expenditures, transactions, and relations with banks and other lending institutions, insurance and retirement plans, home ownership, personal taxes, savings, and investment plans. B.S.B.A. majors may apply this course only as a free elective. Alternate years.

ECON 150: ECONOMIC ASPECTS OF AGING

3 s.h.

An introductory analysis of economic factors associated with an aging population. Topics include the economics of providing for income maintenance, housing, health care, social service, and leisure activities. The economic implications of individuals and the economy will be discussed. Spring, biennially.

ECON 161: GLOBAL BUSINESS AND ECONOMIC ISSUES

3 s.h.

Introduction to basic principles of economics through the examination of contemporary global economic problems. Issues include basic economic development and trade, economic causes of global conflict, patterns of international capital flows, global energy dependence, and international human capital transfers. The course is aimed at developing a basic understanding of the economic dimension of global business and political issues.

ECON 175: ECONOMICS OF FREE ENTERPRISE AND PUBLIC POLICY

3 s.h.

A basic introduction into the history of economics as a social science, the theory and application of microeconomics and macroeconomics, international economics, and economic alternatives in current social problems. This is a freshman-level course can be used only as general education elective in either the associate degree program or the baccalaureate degree programs. Majors in the College of Business Administration are excluded from the course. Each semester.

ECON 202: ECOLOGICAL ECONOMICS

3 s.h.

An examination of the interdependence between the economy and the environment. Alternative theories of justice which are used in deciding environmental issues are examined. Economic perspectives of problem resolutions will be examined in general and with respect to specific environmental problems. Spring, annually.

ECON 211: PRINCIPLES OF MACROECONOMICS

3 s.h.

Introduction to macroeconomics, national income analysis, money and banking, monetary and fiscal policies, inflation, unemployment, and international finance. **Note:** ECON 211 and 212 may be taken in either sequence. Each semester. Fall, annually at Venango.

- ECON 212:** *PRINCIPLES OF MICROECONOMICS* **3 s.h.**
 Introduction to microeconomics, consumer behavior and demand, organization of production, market structures, the pricing of inputs and outputs, and international trade. Note: ECON 211 and 212 may be taken in either sequence. Each semester.
- ECON 215:** *PRINCIPLES OF ECONOMICS (HONORS)* **4 s.h.**
 An accelerated combination of Economics 211 and Economics 212. Topics covered are national income analysis, money and banking, monetary and fiscal policies, inflation, unemployment, international finance, consumer behavior and demand, organization of production, market structures, the pricing of inputs and outputs, and international trade. Prerequisite: Sophomore standing. Enrollment is restricted to students in one of the following: enrolled in the Honors program, have an overall QPA of 3.4 or higher, are in a post-baccalaureate status, or are enrolled in a graduate program.
- ECON 221:** *ECONOMIC AND BUSINESS STATISTICS I* **3 s.h.**
 Topics covered are descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, and confidence intervals. Application of these statistical techniques in the areas of business and economics will be emphasized. Prerequisites: College algebra or equivalent and sophomore standing. Each semester. Fall, annually at Venango.
- ECON 222:** *ECONOMIC AND BUSINESS STATISTICS II* **3 s.h.**
 Topics covered are hypothesis testing, the analysis of variance, regression and correlation analysis, non-parametric statistics, and time series and index numbers analysis. Applications of these techniques in the area of business and economics are emphasized. Students are introduced to the use of a prewritten computer statistical estimation program. Prerequisite: ECON 221. Each semester.
- ECON 230:** *ECONOMIC AND BUSINESS STATISTICS (HONORS)* **4 s.h.**
 An accelerated combination of Economics 221 and Economics 222. Topics covered are descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, confidence intervals, hypothesis testing, the analysis of variance and covariance, regression and correlation analysis, nonparametric statistics, and time series analysis. Applications of these techniques in the area of business and economics are emphasized. Statistical computer routines will be used. The course cannot be used to meet general education requirements. Prerequisite: College algebra or equivalent and sophomore standing. Enrollment is restricted to students in one of the following: enrolled in the Honors program, have an overall QPA of 3.4 or higher, are in a post-baccalaureate status, or are enrolled in a graduate program.
- ECON 309:** *MANAGERIAL ECONOMICS* **3 s.h.**
 Use of economic analysis in the formulation of business policies. Decision theory and criteria for decision-making by the firm; output and "scale" decisions; linear programming; profits, production functions, and cost functions; competitive equilibrium (industry and firm); demand theory, pricing policies, capital budgeting, and investment; uncertainty; inventory management. Prerequisite: ECON 222. Spring, annually.
- ECON 310:** *INTERMEDIATE MICROECONOMIC THEORY* **3 s.h.**
 The behavior of consumers, producers, and the economic theory of production and output determination in commodity and resource markets. Prerequisite: ECON 212. Each semester.
- ECON 311:** *INTERMEDIATE MACROECONOMIC THEORY* **3 s.h.**
 National income accounting and analysis, theories of consumption and investment expenditures, the role of money in a dynamic economy, economic growth, and public policy. Prerequisite: ECON 211 or ECON 215. Fall, annually.
- ECON 312:** *COMPARATIVE ECONOMIC SYSTEMS* **3 s.h.**
 Analysis of alternative patterns of economic control, planning, and market structure. Experiences under capitalism, socialism, and mixed economics are compared and evaluated. Prerequisites: ECON 211 and 212, or ECON 215. Spring, annually.
- ECON 314:** *URBAN AND REGIONAL ECONOMICS* **3 s.h.**
 Introductory subnational economics. Includes elementary trade theory, location theory, systems of cities, land use changes, and the employment and income generating activities of cities. The economics of housing, transportation, poverty, discrimination, and public sector activity are emphasized. Prerequisites: ECON 211 and ECON 212, or ECON 215. Spring, biennially.
- ECON 323:** *APPLICATIONS OF BUSINESS AND ECONOMIC STATISTICS* **3 s.h.**
 Application of the statistical methods of probability, sampling, estimation, analysis of variance, regression, and correlation in the areas of economics and business. Prerequisite: ECON 222 or ECON 230.
- ECON 342:** *ECONOMICS OF GOVERNMENT AND BUSINESS* **3 s.h.**
 A theoretical and empirical analysis of the effects of government policy on business behavior and economic efficiency in a market economy. Topics include: regulatory theory and policy; antitrust policy; social regulation of business and markets; and international trade policy. Prerequisites: ECON 211 and 212, or ECON 215. Spring, biennially.
- ECON 351:** *LABOR ECONOMICS* **3 s.h.**
 Theory of the market is applied to labor. The evolution of labor law, collective bargaining, labor unions, and government policy are stressed. Prerequisites: ECON 211 and 212. Fall, annually.
- ECON 361:** *INTERNATIONAL ECONOMIC RELATIONS* **3 s.h.**
 Theory and practice of international trade. Balance of payments, foreign exchange, national commercial policies, international investment, and foreign aid are considered. Prerequisites: ECON 211 and 212, or ECON 215. Fall, annually.
- ECON 363:** *ECONOMIC DEVELOPMENT* **3 s.h.**
 Survey of development models, development policies, and problems of development in developing countries. The course is aimed at identifying major economic questions relevant to less-developed economies and to showing how economic analysis can be used to further understanding of the obstacles to development and to formulating appropriate policies. Prerequisites: ECON 211 and ECON 212, or ECON 215. Spring, annually.

- ECON 370: MONEY AND BANKING** **3 s.h.**
 Nature and origins of money; the commercial banking system and money creation; central banking and the Federal Reserve System; monetary policy and domestic and international economic stability. Prerequisites: ECON 211 and 212, or ECON 215. Spring, annually.
- ECON 371: PUBLIC FINANCE** **3 s.h.**
 Public sector activity and its impact upon resource allocation and income distribution. Topics include the theory of public expenditures, public choice, cost-benefit analysis, and fiscal federalism. The structure, incidence, and incentive effects of the personal income tax, corporate income tax, and various consumption and wealth taxes are investigated. Prerequisites: ECON 211 and 212, or ECON 215. Fall, annually.
- ECON 461: INTERNATIONAL FINANCIAL ECONOMICS AND CAPITAL MARKETS** **3 s.h.**
 An applied analysis of the behavior and rationale for multinational corporations, with a special emphasis on the economics of technology transfer. Topics include: theory of the firm, foreign direct investment, intellectual property rights, market imperfections, international trade, international finance, economic development, and technology. Prerequisite: ECON 311. Biennially.
- ECON 470: BUSINESS CYCLES AND FORECASTING** **3 s.h.**
 Theories of business fluctuations; applications of modern income theory to business cycles; examination of business cycle indicators and forecasting techniques. Prerequisites: ECON 211 (or ECON 215) and ECON 222 (or ECON 230), or consent of the instructor. Spring, annually.
- ECON 490: HISTORY OF ECONOMIC THOUGHT** **3 s.h.**
 Development of economic ideas from ancient times to the present. Emphasis upon the period from Adam Smith onward. Considers the economic and political environment in which ideas emerged as well as the leading economists advancing or defending the ideas. Prerequisites: ECON 211 and ECON 212, ECON 215, or consent of the instructor. Annually.
- ECON 491: INDEPENDENT STUDIES IN ECONOMICS** **1-3 s.h.**
 Opportunity to explore, in depth, a problem or area of economics, according to the student's interest, under the direction of a faculty member of the department. Prerequisites: 2.75 QPA and consent of both instructor and department chair. Maximum credit granted in ECON 491 is six credits.
- ECON 492: SPECIAL TOPICS IN ECONOMICS** **3 s.h.**
 An opportunity for students to investigate specific topics or current issues. Prerequisites depend upon the subject to be covered.

Intelligence Analysis Courses

- IA 211: INTRODUCTION TO INTELLIGENCE ANALYSIS** **3 s.h.**
 Provides students with an introduction to the field of intelligence. Topics covered provide students with knowledge of the history of intelligence analysis and intelligence services, tools and skills used by the intelligence analyst and the process used in the conduct of basic intelligence research.
- IA 491: SYNTHESIS OF THE INTELLIGENCE ANALYSIS PROCESS** **3 s.h.**
 Provides a synthesis of the basic intelligence subjects from IA211 with the student's knowledge base from their respective major area of concentration. The course focuses on the analysis process, analysis products and reports, and the relationship between the analyst and the policy maker.

General Studies Course

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

- GS/ECON 140: CONSUMER ECONOMICS** **3 s.h.**
 Major aspects of personal financial management, including budgeting of income and expenditures, transactions, and relations with banks and other lending institutions, insurance and retirement plans, home ownership, personal taxes, savings, and investment plans. B.S.B.A. majors may apply this course only as a free elective. Alternate years.

Finance

Department of Finance, Jerry Belloit, Ph.D., Chair

336 Still Hall

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Website: www.clarion.edu/coba/finance

Professors: Belloit, Eicher, Quesenberry

Associate Professor: Eichlin, Brigida, Shepard

The finance curriculum prepares students for a variety of positions in financial institutions and other corporations, or for careers as financial planners. Because finance is a functional area in every organization, students are exposed in their finance electives to a wide range of choices. The real estate program is designed to prepare students for careers in brokerage, appraisal, real estate law, management, finance, and investment in real estate.

FINANCE (B.S.B.A.) 24 credits

Required: Corporate Finance Track – FIN 371, 375, 376, 471, three courses from FIN 373, 374, 377, 463, 473, 474, 476, 480, RE 373, 471, ECON 370 or 371, and a finance or business elective,

which must be an international business course unless FIN 480 has been chosen as one of the three elective finance courses. **Personal Financial Planning Track**—FIN 373, 375, 376, 463, 473, 474; one course from FIN 371, 374, 377, 471, 476, 480, RE 373, 471; and a finance or business elective, which must be an international business course unless FIN 480 has been chosen as one of the three courses.

REAL ESTATE (B.S.B.A.) 24 credits

Required: General Real Estate Track—RE 270, 271, 373, 470, 471; two courses from BSAD 247 or RE 372; RE 374, 472, 475; one course from ACTG 353, 453, 463, BSAD 241, 340, 341, ECON 314, 370, 470, FIN 375, 376, 463, 473, MGMT 323, 324, 427, MKTG 363, 461, 462.

Paralegal Studies Track—Associate degree from American Bar Association approved program in paralegal studies or equivalent, RE 270, 271, 373, 470, one course from BSAD 247 or RE 372, BSAD 340, 448, RE 374. Real estate majors must select a three-credit international business course and a three-credit real estate or business elective. All courses with an RE designation have been approved by the Pennsylvania Real Estate Commission for three credits each toward meeting the education requirements for real estate brokerage licensing. RE 270 and 271 are the courses applicable toward meeting requirements of the salesperson licensing examination.

Business Administration Courses (see additional BSAD courses on page 144)

BSAD 238: INTRODUCTION TO PARALEGAL STUDIES

3 s.h.

Designed to provide an introduction to the present and potential role of the legal assistant within our legal system. The student will be introduced to the operation of the court structure and the tasks handled by paralegals within this structure. Introduction to legal research and office computers as well as ethical obligations of the Legal Assistant will be emphasized. A prerequisite for all other Legal Business Studies courses.

BSAD 239: FAMILY LAW

3 s.h.

In-depth study of all of the area of family law encountered by a legal assistant. Includes divorce, custody, child and spousal support, adoptions, termination of parental rights, and abuse of family members. Students learn both substantive law and procedure. Includes the creation of legal pleadings in the family law area. Prerequisite: BSAD 240. Biennially, Fall Semester at Venango.

BSAD 240: LEGAL ENVIRONMENT I

3 s.h.

Surveys law and society. Orients students to the judicial systems of the United States and the legal remedies and mechanisms at their disposal. Compares and contrasts both civil and equitable court functions through the illustrations of common law contracts, torts, criminal law, property law, and the administration of decedents' estates. Each semester at Clarion Campus. Fall annually at Venango.

BSAD 241: LEGAL ENVIRONMENT II

3 s.h.

Applies concepts explored in BSAD 240, Legal Environment I, in a business context. Emphasizes general substantive business law topics; i.e.: agency, partnerships, corporations, sales, negotiable instruments, and real property. Prerequisite: BSAD 240. Annually.

BSAD 242: METHODS OF LEGAL RESEARCH

3 s.h.

Students learn the traditional legal research materials and brief writing techniques, including use of digests and citators. Emphasizes legal research in the area of administrative law. Prerequisite: BSAD 240. Spring, annually, Venango only.

BSAD 243: WILLS, TRUSTS, AND ESTATES

3 s.h.

Provides instruction regarding the administration of the probate estate as well as necessary documentation and filing requirements. Students gain understanding of various laws governing transfer of property at death as well as tax consequences of such a transfer. Students also study creation of trusts and transfers during life. Concepts are applied to the actual drafting of wills, trusts, codicils, and ancillary documents. Prerequisite: BSAD 240. Biennially, Fall Semester at Venango.

BSAD 244: ADMINISTRATIVE LAW

3 s.h.

In-depth study of various administrative law topics. Familiarizes students with statutes and regulations supporting Social Security, unemployment compensation, and workmen's compensation. Involves study of judicial precedent and mock hearing practice. Prerequisite: BSAD 240. Biennially, Spring Semester at Venango.

BSAD 246: CIVIL LITIGATION

3 s.h.

In-depth study of various court procedures, including discovery, that the legal assistant will use in supporting an attorney during litigation. Familiarizes students with the rules of court, including both criminal and civil practice. Instructs legal assistants on how to prepare various court documents. Prerequisite: BSAD 240. Offered at Venango.

BSAD 247: REAL ESTATE LAW FOR THE PARALEGAL

3 s.h.

Includes estates in land, property sales contracts, deed preparation, title abstracts, searching courthouse records, adverse possession, easements, judgments and liens, tax sales, and the Real Estate Settlement Procedures Act. Students learn to complete all necessary documents involved in all real estate transactions and to prepare all histories of title so that the attorney may certify the title and complete closing. Prerequisite: BSAD 240. Biennially, Spring Semester at Venango.

- BSAD 248:** *LEGAL WRITING* **3 s.h.**
Detailed study of the various writing tasks performed by a legal assistant. Students become proficient at writing pleadings, trial briefs, appellate briefs, legal memoranda, demand letters, and informational requests. Familiarizes students with various briefing techniques and rules of style. Explores the required briefing forms of various courts and administrative appeal agencies. Prerequisites: BSAD 240 and 242. Fall, annually at Venango.
- BSAD 249:** *FIELD EXPERIENCE* **1 s.h.**
Exposes students to types of legal practices for various types of legal programs, including community programs, institutions, and courts. Includes instruction and orientation relative to professional responsibilities, ethics, and practical career considerations for a legal assistant. Prerequisites: BSAD 240, 242, 246, or concurrently with BSAD 242 and 248. Spring, annually. Venango only.
- BSAD 340:** *ENVIRONMENTAL LAW* **3 s.h.**
A study of environmental law and policy in the United States. Explores the method in which business entities and environmental organizations—government and nongovernment—achieve compliance. Focuses on case law providing legal remedies for environmental torts and crimes. Prerequisite: BSAD 240. Spring, annually.
- BSAD 341:** *INTERNATIONAL ENVIRONMENTAL LAW* **3 s.h.**
A study of international law and agreements affecting the global commons. Examines the process by which international accord is reached and enforced and the effects of GATT and NAFTA on environmental regulation. Analyzes the effects of transfrontier pollution, resource allocation and industrialization. Provides case studies involving the redress of environmental wrongs. Prerequisite: BSAD 240 or permission of the instructor. Fall, annually.
- BSAD 448:** *ADVANCED LEGAL WRITING AND RESEARCH* **3 s.h.**
Advanced legal research and writing procedures. Online research methodology shall be incorporated into the study of the various writing tasks performed by a legal assistant. Students become proficient at writing pleadings, trial briefs, appellate briefs, legal memoranda, demand letters, and informational requests as well as the preparation of contracts for sale, deeds, leases, and easements. Title abstracting, search for general liens, tax liens, and property closing procedures are emphasized. Students learn motion practice, federal practice, and discovery. Advanced legal research and writing techniques such as legislative history, argumentative briefs, depositions, and interrogatories are practiced. Prerequisite: BSAD 242 and BSAD 248 or their equivalents. Biennially.

Finance Courses

- FIN 170:** *INTRODUCTION TO FINANCE* **3 s.h.**
Introduces students to the rudiments of finance and elementary financial decision making. Surveys the basics of investments, financial management, and financial markets and institutions. No prerequisites. Annually.
- FIN 370:** *FINANCIAL MANAGEMENT* **3 s.h.**
Examines the acquisition, management, and analysis of short-term and long-term funds both in the domestic and international environment. Emphasizes financial analysis, time value of money and valuation of securities, working capital management, capital budgeting under certainty and uncertainty, risk and return, cost of capital, and the optimal capital structure. Prerequisites: ECON 212 and ACTG 252. Each semester.
- FIN 371:** *INTERMEDIATE FINANCE* **3 s.h.**
In-depth study of corporate financial issues that face today's financial manager. Students learn to incorporate risk into capital budgeting decisions; study mergers and acquisitions; analyze bankruptcies, reorganizations, and lease financing; and study other advanced financial issues prevalent in today's domestic and multinational corporations. Prerequisite: FIN 370. Once annually.
- FIN 373:** *FUNDAMENTALS OF INSURANCE* **3 s.h.**
A study of the concept of risk management and the several methods for handling risks. Emphasizes insurance as transfer method. Discusses fundamental principles of insurance, insurance as a contract, and the insurance policy, including property and liability coverage, life and health, and social insurance. Annually.
- FIN 374:** *PROPERTY AND CASUALTY INSURANCE* **3 s.h.**
In-depth study of property and liability risk exposures, personal and commercial lines, production, underwriting, claims, ratemaking, and loss control functions as well as regulations of insurance. Prerequisite: FIN 373. Spring, annually.
- FIN 375:** *MANAGEMENT OF FINANCIAL INSTITUTIONS* **3 s.h.**
Descriptive analysis of the operations of financial institutions, such as commercial banks, savings banks, and insurance companies. Examines techniques and principles involved in the management of financial institutions. Prerequisites: ECON 211 and FIN 370. Annually.
- FIN 376:** *INVESTMENTS* **3 s.h.**
Examines investment goals and the current environment for investments, including the nature of the investment process and securities markets; analysis of risk and return, especially as it applies to common stocks, preferred stocks, and bonds; introduction to portfolio management and portfolio theory. Prerequisite: FIN 370.
- FIN 377:** *MEDICAL CARE FINANCE* **3 s.h.**
The role of a financial manager in the health care setting. A study of the theoretical and analytical procedures involved in medical fund raising, capital budgeting, expense analysis, rate structuring, and hospital asset management as well as other financial abilities required in the operation and planning of modern health care facilities. Prerequisite: FIN 370. Offered on demand.
- FIN 399:** *SPECIAL TOPICS IN FINANCE* **1-3 s.h.**
Presents various current topics in finance theory and practice. Covers different topics from year to year, as subjects of importance are identified. Prerequisite: FIN 370. On demand.
- FIN/ACTG 463:** *TAX PLANNING* **3 s.h.**
A survey course to acquaint students with tax planning techniques which can be used to accomplish an individual's financial goals. An understanding of financial position, cash flow and income, gift and estate tax matters enables the student to suggest actions that fit the individual's financial priorities. Prerequisite: ACTG 353.

- FIN 471: FINANCIAL PROBLEMS** **3 s.h.**
 Capstone course challenges students to integrate and synthesize, through case methods, their knowledge in finance. Emphasizes corporate finance in application of theoretical underpinning, but some cases also will deal with investments, financial institutions, and markets. Prerequisite: FIN 371.
- FIN 473: RETIREMENT AND ESTATE PLANNING** **3 s.h.**
 An overview of individual income taxation, including an in-depth look at pensions, profit sharing, and other deferred compensation plans, estates, trusts, and applicable tax laws. Prerequisite: FIN 370. Once annually.
- FIN 474: PERSONAL FINANCIAL PLANNING** **3 s.h.**
 Contains a review of each of the major segments of personal financial planning, including the financial planning process, ethical and professional considerations of financial planning, insurance policies and strategies, risk management, investment vehicles, tax planning strategies, retirement plans and employee benefits, and estate planning. Prerequisite: FIN 370. Spring, annually.
- FIN 476: PORTFOLIO THEORY AND MANAGEMENT** **3 s.h.**
 Examines modern portfolio theory and its application to investment strategies; study of options and future markets; investigation of market efficiency. Prerequisite: FIN 376. Annually.
- FIN 480: MULTINATIONAL FINANCIAL MANAGEMENT** **3 s.h.**
 Examines the theory and practice of financial management in multinational firms. Focuses on important differences between domestic and international financial decision-making. Prerequisite: FIN 370.

General Studies Course

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

- GS 242: YOU AND THE LAW** **3 s.h.**
 Surveys the major fields of law. Emphasizes historical development, basic legal principles, legal theory and procedure, and their relation to the individual. Business administration majors may not take this course. Annually.

Real Estate Courses

Real Estate Fundamentals and Real Estate Practice are required by the Pennsylvania Real Estate Commission to prepare for the real estate salesperson licensure examination. All of the real estate courses listed below can be used to meet the educational requirements of the real estate brokerage licensure examination.

- RE 270: REAL ESTATE FUNDAMENTALS** **3 s.h.**
 Introduces the broad area of real estate. Lays foundation of important principles for in-depth study. First in a two-sequence course (with RE 271) required to fulfill the educational requirement for licensure as a real estate salesperson in the state of Pennsylvania. Each semester.
- RE 271: REAL ESTATE PRACTICE** **3 s.h.**
 Introduces the practice of real estate brokerage, real estate appraisal, real estate finance, and real estate investments. Second in a two-sequence course (with RE 270) required to fulfill the educational requirement for licensure as a real estate salesperson in the state of Pennsylvania. Prerequisite: RE 270. Annually.
- RE 372: REAL ESTATE LAW** **3 s.h.**
 Covers the legal relationships and legal instruments used in the practice of real estate. Prerequisite: RE 270. Annually.
- RE 373: REAL ESTATE FINANCE** **3 s.h.**
 A study of the methods of financing the purchase of real estate. Prerequisite or co-requisite: RE 271 or FIN 370. Annually.
- RE 374: REAL ESTATE BROKERAGE** **3 s.h.**
 Examines brokerage of real estate deals with the relationship between the broker, the client, and the customer; the broker and the salesperson; and the broker and the public at large. Also emphasizes the operation and management of a brokerage office, as well as ethical issues in business practice. Prerequisite or co-requisite: RE 271. Offered biennially.
- RE 470: REAL ESTATE APPRAISAL** **3 s.h.**
 This course is designed to introduce the principles of real estate appraisal. It focuses primarily upon those appraisal techniques and analyses which concern the estimation of the value of residential and commercial properties. Prerequisite or co-requisite: RE 271. Offered biennially.
- RE 471: REAL ESTATE INVESTMENT ANALYSIS** **3 s.h.**
 This course is designed to provide the necessary background to evaluate prospective real estate investment. The course will examine financial and non-financial aspects of investing in real property including risk, portfolio impacts, and income taxation consequences. Prerequisites: RE 271 or permission of instructor. Offered biennially.
- RE 472: INCOME PROPERTY APPRAISAL** **3 s.h.**
 This course is designed to provide advanced instruction in income property appraisal. The course will address the techniques and analysis necessary to estimate the value of an income-producing property. Prerequisite: RE 470. Offered on demand.
- RE 475: REAL ESTATE MANAGEMENT** **3 s.h.**
 Provides instruction in the management of real property. Examines the maintenance, operation, and marketing of real estate. Prerequisite or co-requisite: RE 271. Offered biennially.

Industrial Relations

INDUSTRIAL RELATIONS, B.S.B.A.

See Management

International Business

INTERNATIONAL BUSINESS, B.S.B.A.

See Economics

Management

Department of Administrative Science,

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Website: www.clarion.edu/coba/adsci

Professors: Johns, Pesek, Roth, Olivias

Associate Professors: Barboza, Smith, Chen

In what type of vocation are you interested: bank manager, purchasing manager, human resource manager, recruiter, training specialist, compensation manager, small business owner or manager, health services manager, industrial production manager, planner, or consultant? As a management or industrial relations major you will gain exposure to the knowledge and skills necessary to successfully enter your chosen career path. Two majors (management and industrial relations) and two tracks (general management, small business management) within the management major provide our students with the flexibility necessary to specialize in diverse areas of interest.

MANAGEMENT (B.S.B.A.)24 credits

Required: MGMT 321, 322, 324, and 426 and must select one of the following three tracks:

General Management9 credits

Required: Three courses from BSAD 437, MGMT 323, 420, 423, 427 428, 430, 445 450, 482, 483, 485 or 486.

Small Business Management9 credits

Required: MGMT 323, 427, and 428.

All majors must take an additional 3 credit-hour 300/400-level business course or BSAD 241 to complete their 24-credit hour major.

INDUSTRIAL RELATIONS (B.S.B.A.)24 credits

Required: MGMT 324, 426*, 482, 483, 485, and 486. Two courses from ECON 351, HIS 363, MGMT 321, 322, PSY 350, SOC 321.

*Student may substitute BSAD 437 for MGMT 426.

A student may earn a double major in management and industrial relations by taking the required courses for each major and successfully completing two additional upper-level management (prefix) courses with a C or better grade.

BUSINESS ADMINISTRATION, MINOR21 credits

The business administration minor is intended to provide another academic option for non-business majors. Selection of this minor will broaden the academic pursuits of non-business majors, provide a credential that will make them more attractive to employers in the business sector, and serve as background for those intending to pursue the Master of Business Administration (M.B.A.) degree.

Required: ACTG 251 and 252, ECON 211 and 212, FIN 370, MGMT 320 and MKTG 360.



LEADERSHIP MINOR, ENTREPRENEURIAL

LEADERSHIP TRACK21 credits

The minor in Leadership-Entrepreneurial Leadership Track is an extension of a university initiative to develop a broad based and interdisciplinary approach to leadership. The intent is to attract potential students as well as create an environment that emphasizes the overall development of entrepreneurial leadership skills and leadership potential in our students across disciplinary boundaries. As a result of working toward this minor, the student will gain exposure to a body of knowledge that emphasizes entrepreneurial concepts and entrepreneurial leadership development. As an extension to this minor track, the program will develop and promote experiential learning, cocurricular and community service learning activities. Students will be able to develop/enhance specific entrepreneurial leadership skills that can be extended to their academic major.

Required: 15 credits from the following: ECON 211 or ECON 212; ACTG 251; MGMT 323, 427, 428.

Electives: Students must select six credits from one of the following options: Option A: MKTG 360, 361, 362, 363, 369, 491; MGMT 450. Option B: SOC 211, 311, 351, 362, 395; ECON 314.

LEADERSHIP MINOR, INTERDISCIPLINARY TRACK 18 credits

The leadership minor is designed as an interdisciplinary program housed in the College of Business Administration and open to all students regardless of their major. The student will experience critical leadership principles through theory, application, and skill development. As a result, the program provides exposure to a body of knowledge emphasizing both leadership concepts and the development of leadership skills.

Required: 12 credits from the following: SOC 211, PHIL 308, MGMT 320, CMST/MGMT 360, and PS 395.

Electives: Students must select 6 credits from one of the following tracks. These electives must represent two different academic areas and must include at least one 300 or higher course. (1) Individual Dimensions of Leadership: CMST 104, PHIL 111, PSY 111, CMST 312, PHIL 352, PHIL 360, MGMT 427, PSY 454; (2) Group Level Dimensions of Leadership: PS 211, ANTH 252, CMST 216, PS 311, SOC 351, PSY 355, PS 366, SOC 395, CMST 311; (3) Organizational Dimensions of Leadership: MS 110, MS 112, MS 201, CMST 300, MGMT 321, SOC 321, PSY 350, MGMT 423, MGMT 426. It is recognized that a number of non-business curricula contain required business courses (e.g., information systems). For those students

whose major requires specific upper-division business courses, a maximum of nine upper-division business course credits must be completed beyond those required for their non-business major program.

It is recognized that a number of non-business curricula contain required business courses (e.g., information systems). For those students whose major requires specific upper-division business courses, a maximum of nine upper-division business course credits must be completed beyond those required for their non-business major program.

Business Administration Courses (see additional BSAD courses on page 140)

BSAD 437: INTERNATIONAL BUSINESS SEMINAR

3-6 s.h.

Focuses on developing an understanding of the problems and opportunities faced by international organizations. In order to best achieve both micro and macro perspectives in the study of international aspects of the business, students visit businesses abroad for discussions with top-level executives. In addition to international travel, the students will meet with the instructor for a series of briefing and debriefing sessions. An additional three credits may be taken (for a total of six) on an individualized basis. Prerequisite: MGMT 320. Junior standing.

BSAD 490: ADMINISTRATIVE DECISION-MAKING

3 s.h.

Requires students to synthesize what had been learned in the separate business fields and to utilize this knowledge in the analysis of complex problems. Emphasizes organizational and industry research and its application to strategic decision making. Capstone course for a degree in business administration. Prerequisites: MGMT 320, MKTG 360, and FIN 370. Each semester.

BSAD 491: INDEPENDENT STUDIES IN BUSINESS

1-3 s.h.

Explores, in depth, a problem or area of business under the direction of a faculty member of the college. Prerequisites: 2.75 QPA and consent of both instructor and department head. Maximum credit granted in BSAD 491 is six credits.

BSAD 494: BUSINESS EXECUTIVE'S LECTURE

1 s.h.

Introduces students to successful business practices. Several prominent business men and women from the local area give a series of lectures concerning their business philosophies and practices. Assists students in bringing together knowledge attained from the business curriculum and suggesting practical applications of that knowledge. Prerequisite: MGMT 320.

Management Courses

MGMT 120: INTRODUCTION TO BUSINESS

3 s.h.

Introduces/surveys the philosophical and historical background of business institutions. Emphasizes the full range of business functions as it relates to the overall framework of society. Recommended for business students who have not selected a specific major. B.S.B.A. majors cannot apply this course to their major. Each semester.

MGMT 121: FUNDAMENTALS OF MANAGEMENT

3 s.h.

Introduces management and organization. Emphasizes managerial processes and functions and the interface of the manager with supervisors, subordinates, and the work environment. B.S.B.A. majors can apply this course to free electives only. Annually, Venango only.

MGMT 210: ESSENTIALS OF ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT

3 s.h.

Explores the entrepreneurial process associated with new venture formation. Examines managerial processes as they relate to the operation of a small business. The role of a formal business plan is highlighted and developed. Highlights the preparation involved in the formation of a new venture, developing the entrepreneurial plan, and adapting to contemporary challenges facing the entrepreneur. B.S.B.A. majors can apply this course to free electives only. Prerequisite: MGMT 120. On demand. Venango only.

MGMT 227: APPLIED SUPERVISION

3 s.h.

Prepares students for a position as a first-time supervisor and includes the essential elements of good management practices and stresses application rather than theoretical supervision concepts. B.S.B.A. majors can apply this course to free electives only. Prerequisites: sophomore standing and MGMT 120. Spring, annually, Venango only.

MGMT/PSY 228: HUMAN BEHAVIOR IN ORGANIZATIONS

3 s.h.

Explores how basic psychological principles can be used to describe, explain, and predict individuals' on-the-job thoughts, feelings, and behaviors. Includes personality, motivation, perception, attitudes, stress, communication, learning, leadership, group behavior, cooperation, decision-making, and research methods. B.S.B.A. majors can apply this course to free electives only. No prerequisites. On demand.

MGMT 320: MANAGEMENT THEORY AND PRACTICE

3 s.h.

Focuses on the development of management thought and its application. Includes planning, organizing, controlling, decision-making, motivation, leadership, work groups, and organizational change and development. Considers the domestic and international environments and changing societal values. Prerequisites: ECON 211, ECON 212, and junior standing. Each semester.

MGMT 321: ORGANIZATION THEORY AND BEHAVIOR

3 s.h.

Focuses on the managerial application of behavioral science research and theory in dealing with individuals, groups, and organizations. Prerequisite: MGMT 121 or 320. Each semester.

- MGMT 322: *MANAGEMENT OF BUSINESS INFORMATION SYSTEMS* 3 s.h.**
Shows managers how to develop business management information systems, either on their own or with the aid of system technicians. Simulates the systems techniques in organizing and analysis that the student will use in practice. Prerequisite: MGMT 320. Each semester.
- MGMT 323: *PROBLEMS IN SMALL BUSINESS* 3 s.h.**
Explores the challenges and prospects of initiating and operating a small business. Emphasizes strategies for creating and maintaining a sustainable competitive advantage in the marketplace. Highlights sources and uses of information needed for small business decision-making. Prerequisite: MGMT 320. Once every three semesters.
- MGMT 324: *HUMAN RESOURCES MANAGEMENT* 3 s.h.**
A study of the activities involved in human resource management. Includes high performance work systems, job analysis, human resource planning, recruitment, selection, equal employment opportunity, training and development, performance appraisal, compensation practices, and safety and health. Stresses a system approach. Prerequisite: MGMT 320. Each semester.
- MGMT 420: *OPERATIONS RESEARCH* 3 s.h.**
Examines scientific methods that provide managers with a quantitative basis for making decisions. Emphasizes deterministic and stochastic methods, including the transportation method, linear and dynamic programming, PERT, inventory control, queuing theory, and Markov analysis. Prerequisite: ECON 222.
- MGMT 423: *BUSINESS, SOCIETY, AND CORPORATE CONDUCT* 3 s.h.**
A study of concepts of, and theories about, interrelationships between business units and society in general. Employs the concepts and theories in the analysis of complex environmental problems encountered by business managers. Prerequisite: MGMT 320.
- MGMT 425: *OPERATIONS MANAGEMENT* 3 s.h.**
Examines the philosophy of F.W. Taylor and other management pioneers, the nature of the production cycle, simplification and diversification of product lines, purchasing, materials, control, routing, scheduling, dispatching, and plant layout. Prerequisites: ECON 221, 222, and MGMT 320. Each semester.
- MGMT 426: *GLOBAL BUSINESS LEADERSHIP* 3 s.h.**
Introduces the international environment and the growing discipline of multinational business in this environment—i.e., multinational management of strategic planning, organization, production, research and development, marketing, finance, and human resources. Prerequisite: MGMT 320. Each semester.
- MGMT 427: *ENTREPRENEURIAL LEADERSHIP SEMINAR* 3 s.h.**
Hands-on approach to the study of small business as it applies to the various sectors of the economy. Students gain direct exposure to small business through the development of a formal business plan for a new small business. Emphasizes the entrepreneurial activities involved as they relate to this process. Prerequisite: MGMT 320.
- MGMT 428: *ENTREPRENEURSHIP* 3 s.h.**
Explores entrepreneurship and the entrepreneurial process associated with new venture formation. Emphasizes creativity and innovation as they relate to the initiation of a new business. Highlights the preparation involved in the formation of a new venture, developing the entrepreneurial plan, and adapting to contemporary challenges facing the entrepreneur. Prerequisite: MGMT 320.
- MGMT/HPE 330: *SPORTS MANAGEMENT* 3 s.h.**
Provides students with an understanding of how the principles and concepts of management theory can be applied to sports administration. Prerequisite: MGMT 320.
- MGMT 445: *MANAGEMENT SEMINAR* 3 s.h.**
Designed for management majors as a follow-up course to MGMT 320. Presents the views of numerous management theorists and practitioners. Includes broad ranging areas of study and an integration of these areas through discussion, individual written and oral reports, and some case analyses. Students analyze and integrate theory and practice as a means of increasing understanding of the management process. Prerequisites: MGMT 320 and senior standing. On demand.
- MGMT 450/650: *QUALITY MANAGEMENT* 3 s.h.**
Examines quality management (QM), including the philosophies and principles of Deming, Juran, and Crosby. Focuses on the management and continuous improvement of quality and productivity in manufacturing and service organizations. Includes quality measurement, quality assurance, giving employees responsibility for quality, the team approach to quality, employee recognition, various QM tools, and process management techniques including Six Sigma. Prerequisite: MGMT 320.
- MGMT 470: *PROJECT MANAGEMENT* 3 s.h.**
Introduces students to basic project management concepts and reinforces those concepts through the use of project management software. Provides students with the knowledge and skills necessary to plan, organize and control information technology projects. Key topics include monitoring and controlling schedules, progress reporting, risk management, quality management, cost management as well as contracting and procurement. Prerequisite: MGMT 320.
- MGMT 482: *COLLECTIVE BARGAINING* 3 s.h.**
A study of the negotiation and scope of collective bargaining contracts; the substance of bargaining power and institutional goals are applied in the resolution of industrial conflict. Prerequisite: MGMT 324.
- MGMT 483: *COMPENSATION MANAGEMENT* 3 s.h.**
A study of the processes in analyzing, developing, implementing, administering, and performing on-going evaluation of a total compensation and benefit system for all organizational groups. Prerequisite: MGMT 324.
- MGMT 485: *LABOR RELATIONS AND PUBLIC POLICY* 3 s.h.**
Examines the labor relations functions as they relate to federal, state, and local statutes and labor policies. Includes EEO, OSHA, FMLA, ADEA, ADA, NLRA, LMRA, LMRDA, workers' compensation, and unemployment compensation. Prerequisite: MGMT 324.

MGMT 486: OCCUPATIONAL SAFETY MANAGEMENT**3 s.h.**

Provides students with information concerning management techniques, government regulations and safety, and health program development within organizational settings. Prerequisite: MGMT 320.

MGMT 499: SPECIAL TOPICS IN MANAGEMENT**3 or 6 credits**

Presents various current topics affecting management practice or theory. Different topics may be covered from year to year as subjects of critical importance or interest occur. Prerequisites: Junior standing and MGMT 320.

Marketing

Department of Marketing, Brenda Ponsford, Ph.D.,

Chair

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Website: www.clarion.edu/coba/mktg

Professors: Kim, Ponsford

Marketing is a process employed by contemporary organizations to discover and adapt to consumers' needs and desires. It includes advertising, consumer research, and selling, as well as other activities affecting the transfer of goods and services from seller to buyer.

Clarion's Marketing Program has a balanced curriculum and a well-qualified, diversified faculty. The program is relatively small, so students have the opportunity to become acquainted with faculty members. Students can plan their programs to fit their particular interests and needs. Marketing students can also choose the international business minor.

Marketing courses are involved with application software in Still Hall's microcomputer lab.

Listings of internships are available.

The American Marketing Association student chapter is very active on campus. Marketing has two honor societies, Alpha Mu Alpha and Mu Kappa Tau.

Clarion's program in marketing has been designed to prepare students for careers in advertising management, non-profit marketing, marketing research, physical distribution management, retailing management, and general marketing management. Types of entry-level positions available to graduates include: account executive, advertising manager, buyer, inventory control manager, marketing director, marketing research worker, media buyer, merchandise manager, product or brand manager, retail manager, salesperson, traffic and distribution services director, warehouse manager.

MARKETING (B.S.B.A.) 24 credits

Required: MKTG 461, 465, 469. Twelve credits of marketing electives (four courses) from the following: MKTG 361, 362, 363, 366, 369, 462, 463, 468, 491, 495, and three credits of marketing or business elective.

Marketing Courses

MKTG 160: CONTEMPORARY ISSUES IN MARKETING**3 s.h.**

Introduces contemporary issues in marketing and e-marketing in society and the world. Includes discussion of and composition of themes dealing with the impact of marketing on the society, its values, and the individual. May not be used to satisfy core or major requirements for degrees in business administration. Students who have passed MKTG 360 may not schedule this course. B.S.B.A. majors may apply this course only as a free elective. On demand.

MKTG 360: PRINCIPLES OF MARKETING**3 s.h.**

The process in our society by which needs and wants of consumers are anticipated and satisfied. An examination of a systems approach to and analysis of the organizational function and the set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. Students develop an understanding of the increasing complexity of the modern marketing system, why it is essential, and how it performs in both domestic and international marketing situations. Prerequisites: ECON 211, 212, and junior standing. Each semester.

MKTG 361: MARKETING MANAGEMENT**3 s.h.**

A study of coordinative effort in planning, organizing, and controlling marketing and e-marketing activities that direct the flow of goods and services from producer to consumer. Prerequisite: MKTG 360. On demand.

MKTG 362: RETAILING MANAGEMENT**3 s.h.**

Introduces students to the field of retailing and e-tailing. They will study such areas as organizational structure, merchandising practices and procedures, promotional activities, store planning, control, etc. Prerequisite: MKTG 360, or instructor approval. On demand.

MKTG 363: ADVERTISING MANAGEMENT**3 s.h.**

Examines the uses of advertising and advertising campaigns by business and e-business, giving emphasis to the patterns and types of marketing strategy and its various functions, legal and moral obligations, problems in developing and evaluating advertising programs, budgeting, scheduling, and client-advertising agency relationships. Prerequisite: MKTG 360. On demand.



COLLEGE OF EDUCATION and HUMAN SERVICES

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Accreditations

American Library Association (ALA)

Association for Childhood Education International (ACEI)

Council for Exceptional Children (CEC)

Council on Academic Accreditation in Audiology and
Speech-Language Pathology (CAA) of the American
Speech Language Hearing Association (ASHA)

Council on Academic Accreditation of the American
Speech-Language-Hearing Association (ASHA)

International Reading Association (IRA)

Middle States Commission on Colleges and Schools
(Middle States)

National Association for the Education of Young Children
(NAEYC)

National Association of Schools of Music (NASM)

National Council for Accreditation of Teacher Education
(NCATE)

National Council for the Social Studies (NCSS)

National Council of Teachers of English (NCTE)

National Council of Teachers of Mathematics (NCTM)

National Science Teachers Association (NSTA)

Approvals

The American Chemical Society
 Pennsylvania Department of Education (PDE)
 U.S. Department of Education

Memberships

American Association of State Colleges and Universities
 Council of Graduate Schools
 Educational Associate Institute of International Education
 Northeastern Association of Graduate Schools
 Pennsylvania Association of Graduate Schools
 The Teacher Education Council of State Colleges and Universities

Programs administered through the College of Education and Human Services

LIBERAL STUDIES, B.S.,
CONCENTRATION IN LIBRARY SCIENCE 48 credits
Required: LS 255, 257, 258, 356, 357, 358, 361, and 385. A minimum of 39 credits must be at the 300 level or above.

Degree Listing

Teacher Education

Early Childhood Education (A.S.),
 Early Childhood Education (B.S.Ed.), certification for Pre K-4
 Mid-Level Education (B.S.Ed.), certification for grades 4-8
 Mid-level (B.S.Ed.)/M.Ed. with Special Education concentration
 Liberal Studies (B.S.)
 Library Science*
 Library Science*
 Library Science (B.S.Ed.), certification for grades K-12
 French Education (B.S.Ed.) certification for grades K-12
 Music Education (B.S.Ed.), certification for grades K-12
 Secondary Education (B.S.Ed.), certification for grades 7-12:
 Biology General Science
 Chemistry Mathematics
 Earth and Space Science Physics
 English Social Studies
 Spanish Education (B.S.Ed.)
 Special Education/Early Childhood dual certification
 Special Education (B.S.Ed.), certification for grades K-12
 Speech Pathology and Audiology (B.S.) pre-professional degree

A dual certification with environmental education and one of the following areas is also available: elementary, biology, chemistry, earth and space science, and general science.

Human Services

Rehabilitative Sciences (B.S.)
 Developmentally Disabled* Gerontology*
 Substance Abuse*
 Rehabilitative Services (A.S.)—see Venango Campus
 Speech Pathology and Audiology (B.S.); graduate program leading to the M.S. degree and teaching certification grades K-12.

**academic concentrations*

The College of Education and Human Services offers programs to prepare professional educators and other human services personnel. Nine specialized curricula are offered in professional education: Pre-K–4 early childhood education, middle-level education grades 4–8, environmental education, library science, modern languages, music education, secondary education, special education, and speech pathology and audiology. Each teacher education curriculum is designed to meet university graduation requirements, the certification requirements of the state, and the accreditation standards of various professional groups.

The mission of the Clarion University College of Education and Human Services is to prepare effective, dedicated, and high quality professionals, decision makers, and life-long learners who have mastered a recognized body of knowledge, internalized standards of excellence, and demonstrated the required candidate performances. At the center of the mission are candidates, P-12 students, and education and human service professionals, who are active participants in the process of building knowledge, skills, and dispositions.

Based on a strong commitment to learning and teaching, the Conceptual Framework of the College of Education and Human Services defines the preparation of effective, dedicated, and high quality professionals as candidates: constructing knowledge, skills, and dispositions. The framework reflects state and national education standards and describes principles of learning and teaching for administrators, teaching and human services professionals, candidates, learners, school district and agency partners, families, policy makers, and others who make decisions about excellence in education. The framework offers a foundation for articulating and discussing current learning theories and research on effective educational practices and for assessing professional candidate performance.

The College of Education and Human Services is committed to selecting and graduating outstanding candidates who are empowered with the knowledge, skills, and dispositions necessary to assume responsibility for the exercise of professional judgment and continued professional growth to meet the needs of a diverse population in a rapidly changing society. The programs and environments offered by the college are dedicated to facilitating the development of professional candidates who apply knowledge, skills, and dispositions to:

- emphasize the importance of individual variations of unique physical, social, emotional, cognitive, and technological abilities and skills;
- embrace cultural diversity;
- respond to societal needs and influences affecting learners and their families;
- promote learning and teaching strategies that facilitate the development of meaningful knowledge, skills, and dispositions;
- provide authentic learning and assessment experiences with appropriate technology applications;
- support learning interactions fostering collaboration and cooperation among learners, families, and other members of learning communities;
- maintain high standards of professionalism;

- make effective educational decisions and continue to learn and grow personally and professionally.

Human Services

In the human services field, programs are offered in rehabilitative services at the associate degree level, rehabilitative sciences and speech pathology and audiology at the bachelor's degree level, and a five-year program leading to the master of science degree. Certification also is available in speech pathology and audiology.

Programs in these human service areas provide students with the professional preparation to work with children, adolescents, and adults in school and community settings. Students in these programs are prepared to assist individuals who may experience a range of physical or mental disabilities. They develop their skills in classroom, clinical, and field settings at the university, cooperating agencies, and institutions. Completion of their degree program should help students qualify for employment in a variety of roles based on the training they receive in the various human services programs within the college. Their responsibility will be to help people acquire those competencies necessary for independent living.

Teacher Education

In its teacher education programs, the College of Education and Human Services is committed to producing professionals who are effective decision-makers and whose skills, attitudes, and beliefs are built upon the following teacher education conceptual framework that underlies all teacher education programs in the college.

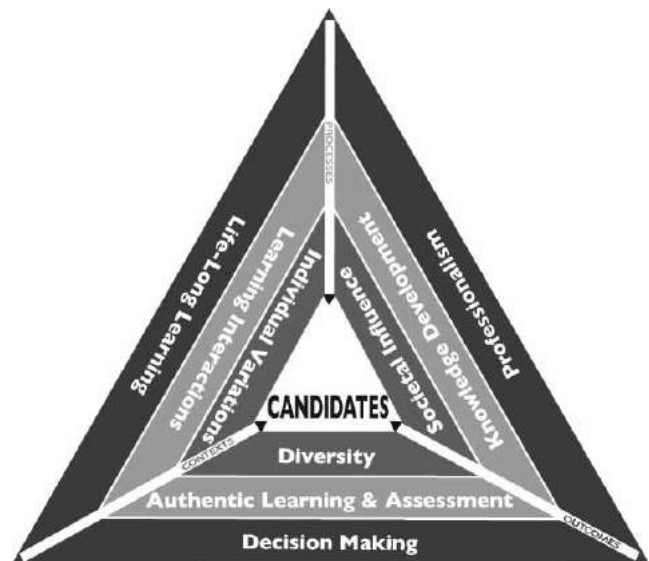
Teacher Education Conceptual Framework

Based on a strong commitment to learning and teaching, the mission of the Clarion University College of Education and Human Services defines the preparation of effective, dedicated, and high quality professionals as candidates constructing knowledge, skills, and dispositions. Clarion's Conceptual Framework for Learning and Teaching reflects the current knowledge base in the field of education as advocated by professional accrediting agencies. The Conceptual Framework defines and describes principles of learning and teaching for administrators, teaching and human services professionals, students, families, policy makers, and others who make decisions about excellence in education. The framework offers a foundation for articulating and discussing current learning theories and research on effective educational practices for professional education candidates as well as for university and school faculty and for assessing professional candidate performance.

Candidates are at the center of the Conceptual Framework. The centrality of candidates, depicted by the graphic above, reflects current cognitive views of how individuals learn. The framework identifies both students and professionals as learners who are active participants in the process of building

knowledge, skills, and dispositions within the context of what they already know and applying the new understandings and skills to authentic situations. Candidates are surrounded by three triangles depicting the development of students and professionals as they acquire knowledge, skills, and dispositions within the:

- contexts of individual variations, diversity, and societal influences and the
- processes of knowledge development, learning interactions, and authentic learning and assessment to facilitate the
- outcomes of professionalism, decision making, and life-long learning.



The first triangle of the model is Contexts. Candidates develop in the contexts of individual variations, diversity, and societal influences. The learners are inseparable from these important contexts that impact the ways in which individuals process and develop knowledge and experiences.

Individual variations provide contexts for the development of candidates. As individuals develop knowledge, skills, and dispositions, they are dependent on the unique set of physical, social, emotional, cognitive, and technological abilities and skills they each possess.

Diversity is an important context for candidates' development. Educational programs include communities of learners encompassing students, families, and professionals from diverse backgrounds. Respect for and responsiveness to the diversity of learners is a crucial component of this context.

Societal influences include the economic, social, technological, cultural, and political contexts that affect schools and agencies. These contexts impact candidates as they develop knowledge, skills, and dispositions and apply these new understandings and skills to real-life situations.

The second triangle of the Conceptual Framework identifies the Processes of Knowledge Development, Authentic Learning and Assessment, and Learning Interactions. Candidates use these processes to promote cognitive, language, creative, social, emotional, physical, and motor growth and development.

Knowledge development is a process candidates use to build meaningful understandings that support growth and development. Grounded in cognitive learning theory, inductive and deductive instructional models assume the active involvement of candidates in the process of acquiring and developing knowledge. Professionals use a variety of models of learning and teaching that are designed to help students develop deep understandings. Knowledge is not static but will continually evolve and change as candidates confront new information, experiences, and technology.

Authentic learning and assessment are processes requiring understandings similar to the thinking encountered in actual situations outside the classroom. Effective instruction, technology, and authentic assessment assist candidates in the application and investigation of real-world problems and solutions. Learning experiences and assessments are anchored in the candidates' real-world experiences contributing to the knowledge construction in a particular content discipline.

Learning interactions is a process occurring as candidates communicate, collaborate, and negotiate in the construction of knowledge, skills, and dispositions. Learning interactions are enhanced through the integration of technology. Interactions encourage candidates to verbalize their thinking, refine their understandings, and reflect on growth and changes.

The third triangle reflects the candidates' Outcomes. All university Education and Human Services programs for candidates at the initial and advanced levels guide and facilitate candidates as they develop:

- Professionalism—personal codes of behaviors and responsibilities as members of learning communities;
- Decision making—essential skills in the active construction of knowledge, skills, and dispositions; and
- Life-Long Learning—habits of inquiry and reflection that help nourish continuing curiosity and excitement about the world.

Certification

Students who complete one of the teacher education curricula at Clarion and who are awarded a baccalaureate degree are qualified for the Pennsylvania Instructional I Certificate. The student must apply for the certificate and the certificate must be issued before graduates may teach in the public schools of Pennsylvania. **Recommendation for certification is based upon program requirements in effect when the application is filed, students are urged to complete the application during the semester in which they plan to graduate.** Applications are available in the Office of Field Services.

Students should be aware that Act 34 of 1985, Act 33/Act 151 of 1994, and the FBI Clearance of 2006 require applicants and some transferring employees of public and private schools, licensed day care centers, and some residential facilities to

provide a criminal record check, a child abuse clearance, and Federal Bureau of Investigation clearance. Some human services agencies also require these clearances of prospective employees. Applications for teacher certification may be denied based on information presented in these background clearances.

Any certificate may be extended to include other teaching fields by completing approved programs in those areas. Students not enrolled in a program leading to a Bachelor of Science in Education degree can make application for teacher certification by obtaining admission to and completing one of the university's approved programs in teacher education. For further information, consult the Dean's Office, College of Education and Human Services.

The Instructional I Certificate will be issued to individuals who fulfill the following:

1. Possess a baccalaureate degree.
2. Successfully complete an approved teacher certification program.
3. Provide verifications of a valid health examination (within one year) and negative tuberculin test (within two years) at the date the application is processed.
4. Present evidence of having passed the Pennsylvania Department of Education prescribed and administered teacher certification tests in all certification areas.
5. Present evidence of approved background clearances.
6. Receive recommendation for certification from the Dean, College of Education and Human Services.

College of Education and Human Services Selection, Retention, and Graduation Standards

- I. Student responsibilities in any program of the college
 - A. Complete all application forms in a timely fashion:
 1. Admission to program
 2. Student teaching/internship/externship experience
 3. Graduation from the university
 4. Certification, where appropriate, from the Commonwealth of Pennsylvania
 - B. Meet with advisors on a regular basis for career and program counseling as well as at the appropriate checkpoints in the program to obtain the appropriate forms.
 - C. Arrange for any tests needed to comply with the Public School Code of 1949, as amended, Article XII, Section 1209, which in part provides that teaching certification may not be issued if the "applicant is either mentally or physically disqualified by reason of tuberculosis or any other communicable disease or by reason of mental disorder, from successful performance of the duties of a teacher."
- II. Admission to a program
 - A. All programs require completion of 48-60 semester hours and a qualifying QPA, including six semester hours of introductory courses (grade of C or higher) to be determined by the appropriate department in the College of Education and Human Services.

Mid-level Education (4–8)..... ED 110, 122
 Pre-K-4th Grade (Early Childhood) ED 121, 231
 Library Science LS 255 and ED 110
 Modern Languages ED 110
 Music Education ED 110
 ALL Secondary majors ED 110
 Intervention Specialist/Special Education
 (Pre-K–12).....SPED 128, 129
 Rehabilitative SciencesREHB 126, 227
 DUAL CERTIFICATIONS:
 Pre-K-4th Grade (Early Childhood)/
 Special Ed.....ED 121 and SPED 128
 Mid-level/Library Science ED 110 or
 ED 121 and LS 255
 Speech Pathology andCSD 125, 150, 156
 and Audiology

- B. Completion of a speech and hearing screening
 C. ACT 33/151, ACT 34, and FBI clearances (Act 114)
 D. PASS PRAXIS I tests—Pre-Professional Skills in
 Reading, Writing, and Mathematics before junior
 class status
 E. Two college-level ENGLISH courses are required—
 ENG 111 (composition) and one literature (Grade of
 C or higher)
 F. Two college-level MATHEMATICS courses are
 required (Grade of C or higher)
 Mid-level and Pre-K-4th..... MATH 111, 211
 (prerequisite for ECH 415 or EDML 324)
 Secondary MathematicsCPSE 201
 Secondary Biology
 and Earth and SpaceMATH 171 + 1 higher level
 Secondary Chemistry MATH 270, 271
 Secondary General Science..... MATH 171,
 MATH 221 or 321
 Secondary PhysicsMATH 270 + 1 higher level
 Intervention SpecialistMATH 111, 211
 Speech Pathology and Audiology ..MATH 112 or higher
 + MATH 221 or PSY 230
 ALL othersMATH 112 or MATH 113
 + 1 higher level

NOTE: MATH 050 DOES NOT count toward general education requirements, graduation, or as a MATH requirement for education majors.

NOTE: All students must complete both English requirements and both mathematics requirements with a grade of C or higher prior to student teaching or intern/externship.

- G. Possession of an appropriate required cumulative QPA or higher at the time of application.
 H. Removal of any academic, physical, or mental deficiencies noted at any point in the student's program that would prevent the candidate from fulfilling the responsibilities of the professional area.
NOTE: Transfers and readmits must meet these requirements as well, but will be treated on a case-by-case basis.
- III. Retention in a program
 A. Maintenance of an appropriate cumulative QPA.
 B. PRAXIS II (Content Knowledge & Specialty Tests)
 C. Attainment of a grade of C or higher in all required professional courses and all required major courses in an area. Mid-level and early childhood majors

must also attain a grade of C or higher in required content competency courses. All proficiencies must also be C or higher (or equivalent).

- D. Removal of any academic, physical, or mental deficiencies identified after admission to a program before being permitted to continue in the program.
 E. Completion of all program requirements.
- IV. Qualification for student teaching/internship/externship
 A. Completion of 90 semester hours of university credit in professional program, including all teaching methods or clinical courses.
 B. A grade of C or higher in all required professional courses, all required major courses, required content competency courses, and proficiencies (where required).
 C. An overall appropriate cumulative QPA.
 D. Satisfactory completion of required tests (PRAXIS), review of criminal record (ACT 34), child abuse clearances (ACT 33/151), and FBI clearance (Act 114) are necessary for field placement, including verification of a valid health examination and negative tuberculin skin test.
- V. Graduation requirements
 A. Fulfill all university standards for graduation.
 B. An overall appropriate cumulative QPA.
 C. A grade of C or higher in ALL required professional courses, ALL required courses in the major area, content competency courses, and proficiency courses (where required).
- VI. Pennsylvania teacher certification requirements at Clarion University
 A. Complete all program requirements and meet the standards of the Teacher Certification Program at Clarion University.
 B. PASS ALL appropriate CURRENT examinations required by PDE.

All Majors	PRAXIS I (Reading, Writing, Mathematics) and appropriate Specialty Area Exam(s)
Mid-level, Pre-K-4 and all Pre-K-12 Majors	Fundamental Subjects—Content Knowledge

 C. Complete application for certification.
 D. Certify U.S. citizenship or hold an immigrant visa which permits employment within the United States and declares intent to become a U.S. citizen.
 E. Certify no habitual use of narcotic drugs in any form or excessive amounts of intoxicating beverages (School Code 1209) and not under indictment for and not convicted of a criminal offense.
 F. A health examination is required (within one year) and negative tuberculin test (within two years) at the date the application is processed. These must be completed at or verified by the Keeling Health Center on campus.
 G. Receive recommendation for certification from the dean, College of Education and Human Services, or current certification officer.

VII. The College of Education and Human Services will, through a formal agreement with Student Support Services and the Educational Opportunities Program, identify students with disabilities for the purpose of advisement in relation to professional, certification, and degree requirements.

- A. Students with disabilities will be encouraged to self identify to their faculty advisor, and/or department chair and associate dean for purposes of receiving appropriate accommodations which ensure their full participation in a college program.
- B. The associate dean, department chair, or advisor may meet with each student with disabilities to discuss professional, certification, and degree requirements. The associate dean and/or department chair will discuss these issues with regard to the student's disability and any potential functional limitations that may impact the attainment of certification, the degree, and effective practice in the profession. Appropriate accommodations and strategies to compensate for any functional limitations will also be discussed with the student. Results of this meeting will be documented, signed by the associate dean, and copies of the report will be placed in the student's departmental file, field experience file, and Student Support Services file.
- C. Whenever possible, students will be placed and supervised in an early field assignment as a means to ascertain their abilities and to develop strategies to overcome functional limitations.
- D. If faculty suspect a student has a disability which may negatively affect the student's ability to obtain certification, the degree, or practice in the profession, the student should be referred to Student Support Services for assistance.
- E. All faculty will be made aware of the need to openly discuss professional, certification, and degree requirements with students with disabilities. However, the final decision to pursue a degree program rests with the student as long as program requirements are met satisfactorily. Faculty must also be aware that all graduates of certification programs should be qualified to practice in the profession in a competent manner.

VIII. Transfer students

Each transfer student must follow the selection and retention standards of the College of Education and Human Services. The appropriate department chair will evaluate transcripts and any deficiencies will be noted. An advisor will be assigned to assist transfer students in developing individual plans to remove identified deficiencies. If the student is transferring 60 or more credits, PRAXIS I tests must be passed before higher level education courses may be taken.

IX. Petitions procedure

The faculty of the College of Education and Human Services recognizes there may be times when special

circumstances arise which may legitimately justify the waiver of certain policies and/or standards. Students who have failed to meet the policies and/or standards because of unusual and extenuating circumstances are permitted to file a petition with the college. Petition forms are available in the Office of the Dean. All petitions must be written, addressed to the dean, and filed in a timely fashion. Students will be notified in writing from the dean's office regarding a decision, with a copy to the student's academic advisor.

Application Procedures for Student Teaching/ Internships/Externships

1. Read the qualifications for student teaching, internship, and externship, and the conditions for assignment.
2. Complete the Application for Student Teaching/ Internship/Externship with the advisor. Complete the Personal Data Form. Return these forms to the Office of Field Services.
3. Discuss questions concerning assignments, if necessary, with the academic advisor, department chair, or director, Office of Field Services.

Conditions for Assignment

1. All qualifications must be met prior to the start of the student teaching, internship, and externship.
2. Applicants must have verification of a valid health examination and negative tuberculin skin test prior to reporting to the field assignment. Verification of liability insurance is also required.
3. Students are responsible for their own travel and housing arrangements. Every attempt is made to place students at approved sites within a 50-mile radius of Clarion.
4. Students will follow the school district/agency calendar, including in-service days, breaks, and holidays.
5. Applicants will not be assigned to school districts/ agencies they previously attended as elementary and secondary pupils and those where relatives work and attend school.
6. Applicants will not be assigned to their home communities.
7. Assignments will be for a full day, five days per week, for a full semester.
8. Tentative assignments for summer and fall will be announced during April; assignments for spring will be available by last week of classes in December. Applicants may wish to secure housing in the community where they are assigned.
9. Applicants will be assigned to selected and approved sites and cooperating professionals by the academic departments and Office of Field Services. Students are not permitted to make their own arrangements.
10. Applicants will not be permitted to enroll in courses, except designated seminars, during this professional semester; this field experience is a full-time professional responsibility.
11. Applicants will report any changes in status or plans to the Director, Office of Field Services, whenever they occur.

Education

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Professors: Brancato, J. Brown, Courson, McCullough, Smith

Associate Professors: Bonnett, Ellermeyer, Goodman, Heeter,

Howe, Kolencik, Maguire, Murphy, Smrekar

Assistant Professors: Matthews

Instructor: N. Donato

The Education Department is committed to preparing outstanding graduates empowered as decision-makers and reflective practitioners. These individuals shall have the knowledge and skills necessary to take their place in society as professional educators, capable of meeting the needs of a diverse population in our rapidly changing society. The overall mission of the department is to develop educators who have mastered both general knowledge and specialized training, including a recognized body of knowledge in professional content and pedagogy, and a successful integration of technology into day-to-day instructional practices. Individuals will demonstrate an internalized standard of excellence, will be prepared to meet professional employment requirements, and will be ready to assume responsibility for the exercise of professional judgment and for continued professional growth.

The experienced faculty of the Education Department at Clarion is committed to students and to the profession of teaching. Serving as academic advisors, faculty members encourage and help individual students attain their professional teaching goals. Small, student-centered classes and a variety of field experiences are offered in five specialized curricula in professional education: early childhood, mid-level, environmental, modern languages, and secondary education. Each curriculum is designed to meet the graduation requirements of the university, the certification requirements of the Commonwealth of Pennsylvania, and the accreditation standards of professional groups such as the National Council for the Accreditation of Teacher Education.

Pre-K–4th Grade (Early Childhood)

The Pre-K–4th Grade (Early Childhood) education program provides teacher candidates with multiple opportunities to gain the knowledge, skills, and dispositions necessary to become effective decision makers in a multicultural society. In a sequential format, early childhood candidates are inducted into the education core, proceed with a series of pre-methods courses, and engage in a sequence of field experiences that begin in the first semester of the program.

General Education

The early childhood major should fulfill the general education requirements of the university.

Professional Competencies

General education courses may be used to meet the following content competencies required for certification

in Pennsylvania: literature and language, mathematics, and English.

Professional Education Courses

The following courses are required of all Pre-K–4th Grade (Early Childhood) Education majors:

Pre-K–4th (ECH) Core (18 credits): ECH 121, 231, 235, 236, 245, 260.

Special Education Core (9 credits): SPED 418, 442, 443

Pre-K—K Block (18 credits): Must be taken concurrently: ECH 301, 310, 322, 323, 325, 413.

Grades 1–4 Block (18 credits): Must be taken concurrently: ECH 414, 415, 416, 418, ED 417.

Student Teaching (12 credits): ECH 424, 425.

Mid-level Education: Grades 4-8

Teacher candidates pursue an academic program that includes general education courses, professional education courses, and an area of concentration; i.e., English language and reading, mathematics, science, or social studies.

General Education

The middle-level education major should fulfill the general education requirements of the university.

Education Core: ED 110, 122, 350, 417, EDML 322, 324, 325, 332, 333.

Special Education Core: SPED 418, 441, 442.

Student Teaching: EDML 424, 425

Middle-level Specialization (30 credits)

– **English/Language Arts & Reading concentration:** ENG 199, 207, 242, 262, 263, 297, 332, 333, 339, 350, 470, 482. Content Competencies: (ED 350, ENG 459, 462, 463, select one), NSCI 150, 151, SCED 205, (PHSC 111, 112, BIOL 111, ES 111, 140, select one), MATH 111, 112, 113, 211, HIST 120 or 121, HIST 111 or 112 or 113, PS 211, GEOG 100.

– **Mathematics concentration:** MATH 111, 112, 171, 211, MATH 113 or MATH 221, or MATH 321, MATH 212 or MATH 357, MATH 213 or MATH 260, or MATH 270, MATH 214 or MATH 340, MATH 215 or MATH 340, MATH 454. Content Competencies: ED 122, 350, 417, NSCI 150, 151, SCED 205, (PHSC 111, 112, BIOL 111, ES 111, 140, select one), HIST 111 or 112 or 113, HIST 120, 121, PS 211, GEOG 100.

– **Sciences concentration:** BIOL 155, 156, 165, 166, 202, CHEM 153, 163, ES 150, 280, PH 251, 252. Content Competencies: ED 122, 350, 417, ENG 111, 263, 463, EDML 332, 333, HIST 111 or 112 or 113, HIST 120 or 121, PS 211, GEOG 100.

– **Social Studies concentration:** HIST 111, 120, 121, ECON 211, PS 211, BIOL 476, GEOG 100, HIST 112, 113, 130, 131, 286, ANTH 211. Content Competencies: ED 122, 350, 417, NSCI 150, 151, SCED 205, (PHSC 111, 112, BIOL 111, ES 111, 140, select one), ENG 111, 263, EDML 332, 333, MATH 111, 112, 113, 211.

Integrated Middle-Level Education (Grades 4–8)

Teacher candidates pursue an academic program that includes general education courses, professional education courses, and an area of emphasis; i.e., English/language-reading, mathematics, science, or social studies. This course of study is integrated with a Master's in Education with Special Education Concentration. Please refer to the *Clarion University Graduate Catalog* for specific requirements at the graduate level.



Environmental Education

Sponsored by an interdisciplinary committee comprised of faculty from the Departments of Biology, Chemistry, Education, and Anthropology, Geography, and Earth Science, the certification in environmental education prepares teacher-educators to develop and implement in-school and outdoor education about the environment at both elementary and secondary levels. The Environmental Education Program is for non-degree certification only. It may be combined as a dual certification with one of the following areas: biology, earth and space science, chemistry, or general science. The total semester hours needed to complete a dual certification program varies. Graduate students in some areas may also complete, concurrent with their master's program, the certification program by selecting appropriate courses by advisement. Undergraduate application for admission to the program is through the Education Department chairperson. Graduate application for admission is through Graduate Studies. The required courses in the non-degree, certification only, program are as follows:

Education (21 credits): ED 110, 122, 225, 327, 329, 417, and SPED 418, 441, 442.

Science Foundations (31 credits): BIOL 155, 165, 156, 166, CHEM 153, 163, 154, 164, PH 251, ES 150 and 280.

Education About the Environment Specialization (15 credits): GEOG 115, ES 260, 270, BIOL 202, and SCED/BIOL 476/576.

Professional Core (15 credits): ED 403, 424, and 426.

Math Proficiency (three credits): MATH 221.

Secondary Education

Baccalaureate programs leading to certification in secondary education (7-12) are available in biology, chemistry, earth science, English, French (K-12), general science, mathematics, physics, social studies, and Spanish (K-12). Each program is designed to provide students with a thorough foundation in the teaching specialty and with the professional skills needed to work effectively with adolescents in a variety of learning environments.

General Education

Secondary education students fulfill the general education requirements of the university. However, within certain majors there may be slight deviations from the pattern presented, and secondary students should check with the departmental office of the discipline in which they are majoring to ascertain any variations. Two college-level English (composition/literature) and math courses are required.

Professional Education Core Requirements (36 credits):

ED 110, 122, 225, 327, 329, 350, 417, ED xxx (Methods in specific discipline), ED 424, 425, and SPED 418, 441, 442.

Secondary Certification Specialization

Secondary education majors may choose areas of specialization from the following programs. A grade of C or better is required for each course in the major area of specialization.

Biology (38 semester hours)

Required Courses: BIOL 155, 165, 156, 166, 201, 202, 203, 382, 476, CHEM 154, 164, 251, 261.

Electives (two required), BIOL 341 and 405 recommended.

Prior to registration the student's advisor will approve courses taken as biology electives.

In meeting general education requirements, the distribution in natural sciences and mathematics may be met with supplemental courses from the field of specialization. It is recommended the quantitative reasoning requirement be met by MATH 221 and the mathematics competency be met by MATH 171 or higher. Students should note no more than one non-laboratory elective may be included in credits for the biology specialization. Proficiency in earth science, Physics I or II, also required.

Chemistry (42 semester hours)

Required: CHEM 151, 152, 161, 162, 251, 252, 257, 261, 262, 270, 271, 353, 354, 355, 358, 363, 364, 368, 456, and 470.

Additional Requirements: MATH 270, 271 and PH 251 or 252. Students who have taken CHEM 153 and 154 may be permitted, upon consideration of their performance, to substitute these courses for CHEM 151 and 152. A total of 30 semester hours in chemistry must be taken. Competency in biology and earth science (BIOL 476) also required.

Earth Science (33 semester hours)

Required: ES 150, 200, 222, 250, 270, 280, 476

10 credits in one of two specializations: Geology: ES 255, 260, 355, 360, 370; Planetarium Management: ES 201, SCED 485, COOP 497

SECONDARY EDUCATION CORE (31 credits)

Required: ED 110, 122, 327, 329, 334, 418, 424, 425; SCED 499

Supplemental Courses: CHEM 154/164, four credits from biology, chemistry, or physics.

Proficiencies: CHEM 153/163, PH 251 or 252, BIOL 155/165.

English (42 semester hours)

Required: ENG 199, 221, 222, 225, 226, 227 or 228, 262, 263, 355, 459, 470, 462 or 463.

Additional English requirements (nine credits):

One from: ENG 353, 457, 458, or 459.

Literature electives: six credits must be taken on the 300/400-course levels.

Non-print media competency is required.

Advanced writing competency is required.

French K-12 (33 semester hours)

Required (33 credits): FR 250 or 251 and 252, 265, 270, 281, 282, 301, 341, 342.

Supplemental Courses (six credits): ANTH 211 and ENG 457 or ENG 262.

Electives: Six credits to be approved by advisor (200 level above 252 and any 300 level French excluding courses taught in English).

Students participating in foreign study programs must complete at least six hours of French literature at Clarion, regardless of the number of credits earned abroad.

General Science (38 semester hours)

A program specifically designed to prepare students to teach science at the junior high or middle school level. General science majors are not prepared to teach specialized high school courses such as biology, chemistry, physics, or earth science. Likewise, biology, chemistry, or physics majors are not prepared to teach general science unless their college program is broadened to include all of the required science courses of the general science curriculum. Students who desire to teach only specialized courses should major in the specific subject area.

Required: BIOL 155, 165, 156, 166, 202, BIOL or ES 476, CHEM 153, 163, 154, 164, PH 251, 252, ES 150, 200, 270, and 280, plus two one-credit seminars.

Also Required: Proficiency in precalculus (MATH 171) and statistics (MATH 221 or 321); Successful completion of SCED 460 and 499.

Majors in general science should not include BIOL 111, MATH 112, PHSC 111, PHSC 112, and ES 111 in their general education programs. Only upon satisfactory completion of all basic courses in the general science curriculum will a biology, chemistry, physics, or earth science major be recommended for an Instructional I certificate in general science.

Mathematics (31-35 semester hours)

Required courses: MATH 270, 271, 272, 300, 321, 340, 357, 370, 390, 451, 49, and MATH Elective (300 level or above).

Also Required: (6 credits) Junior High Strand: MATH 111, 221 or Senior High Strand: MATH elective (221, 285, above 300).

Electives: Prior to registration, the student's advisor will approve courses taken as mathematics electives. Majors must select PH 258 and/or CHEM 151 or 152 instead of basic PHSC 111-112, which do not count toward graduation.

Concurrent certification in physics is possible with the election of PH 258, 268, 259, 269, 351, 352, 353, 354, 371, 372, 461. Students admitted into both programs should substitute ED 335 for 339.

Physics (38 semester hours)

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 371, 372, 461.

Electives: Electives (4) must be selected from: PH 301, 302, 355, 356, 357, 400, 455, 457, 460, 498, 499. Additional 12 credits in physics (300-level or higher).

Proficiencies in Other Related Areas: MATH 270, 271, 272, 350, CHEM 153, 163, BIOL 476.

Social Studies (42 semester hours)

Social Studies Specialization: History Concentration (24 credits)

Required: History Concentration (24 credits), Political Science (six credits), Geography (six credits), ECON 211, 212, ANTH 211, PSY 211, SOC 211, BIOL 476. Non-western culture competency (three credits.)

Spanish K-12 (33 semester hours)

Required (33 credits): SPAN, 250 or 251 and 252, 265, 270 280 or 281 and 282, 301 and 12 additional credits chosen from Spanish 253-499, excluding courses above, and courses taught in English.

Supplemental Courses (6 credits): ANTH 211 and ENG 457 or ENG 262.

Pre-K through Grade 4 (Early Childhood) Education Courses**ECH 120/HPE 120: CHILD CARE HEALTH ADVOCATE****1 s.h.**

Ensuring the health and safety of children is a fundamental component of an early childhood program. The course emphasizes the promotion of the health and safety of children, including recognizing and correcting health and safety problems. The course focuses on best practices in health safety and nutrition for young children.

ECH 122: PRESCHOOL DEVELOPMENT AND LEARNING**1 s.h.**

Acquisition of understanding and appreciation of the cognitive, social-emotional, ecological systems, and physical-motor dimensions of human growth and changes during the preschool years. Emphasizes cultural influences on human growth and change with respect to cognition, learning theories, individual differences, personality, growth, abilities, and interests. Explores cross-cultural and multi-ethnic perspectives with respect to holistic development of preschoolers; involvement with and observation of preschoolers.

- ECH 123:** **CREATIVITY IN EARLY CHILDHOOD CURRICULUM** **1 s.h.**
Acquisition of understanding and appreciation of the cognitive, social-emotional, ecological systems, and physical-motor dimensions of human growth and changes during middle childhood. Emphasizes cultural influences on human growth and change with respect to cognition, learning theories, individual differences, personality, growth, abilities, and interests. Explores cross-cultural and multi-ethnic perspectives with respect to holistic development of school-aged children and adolescents.
- ECH 124:** **CREATIVITY IN EARLY CHILDHOOD CURRICULUM** **1 s.h.**
Provides information that allows students to identify the characteristics of and design effective and developmentally appropriate learning environments for young children that promote interaction, exploration and knowledge construction. In addition, experiential opportunities will be developed which allow the student to apply this knowledge to various age groups of children.
- ECH 231:** **CREATIVITY IN EARLY CHILDHOOD CURRICULUM** **3 s.h.**
Explores the nature of creativity and its value in the growth of young children. Students develop and present various open-ended and child-centered projects for the enhancement of creativity and the creative whole learning experience using art, music, and movement. Students demonstrate how to guide young children in creative learning and expression through individual and group projects. Examines the creative process as a source of choosing content, planning lessons, organizing materials and designing assignments to enable children to develop essential skills and attitudes for creativity. Prerequisites: ED 121. Each semester.
- ECH 233:** **PUPPETRY IN THE EARLY CHILDHOOD CURRICULUM** **1 s.h.**
Participants gain the knowledge and skills necessary to implement the use of puppets in the early childhood classroom and to appreciate the power of puppets as a vehicle in developing creativity, imagination and self-expression in children. Topics focus on play, the history of puppets, types of puppets, and the use of puppets in early childhood curriculum. As needed.
- ECH 245:** **LANGUAGE AND LITERACY IN THE EARLY CHILDHOOD** **3 s.h.**
The information provided in this course will allow students to identify specific developmental milestones in speech/language development. In addition, information related to cognitive, social-emotional, and physical growth will be analyzed and synthesized as it relates to the overall maturation of the child and specifically to the speech and language development. Finally, experiential opportunities will be developed which allow the student to evaluate and apply this knowledge to various age groups of children. Prerequisites: ED 121, ECH 231, ECH 235.
- ECH 235:** **OBSERVATION: CONSTRUCTING AN EARLY CHILDHOOD KNOWLEDGE BASE** **3 s.h.**
Young children from birth to age eight are cared for and educated in diverse early childhood settings. Gives undergraduate students experience in using effective methods for observing young children's development, environments, interactions, and adaptations while constructing a wide early childhood knowledge base. Emphasizes developmentally appropriate practices and legal and ethical responsibilities. Directs students' participation with children of different age groups in a variety of early childhood settings through field-based/case study approaches. Includes one hour of class meetings with two-hour field placement per week. Prerequisite: ED 121 must be taken prior to or concurrently with this course.
- ECH 236:** **ASSESSMENT AND PLANNING: USING AN EARLY CHILDHOOD KNOWLEDGE BASE** **3 s.h.**
Young children from birth to age eight are cared for and educated in diverse early childhood settings. Gives undergraduate students experience in using effective methods for observing, assessing, and documenting young children's development for the purpose of planning appropriate programs, environments, interactions, and adaptations. Emphasizes developmentally appropriate practices and legal and ethical responsibilities. Directs students' participation with children of different age groups in a variety of early childhood settings through field-based/case study approaches. Includes two hours of class meetings with one-hour field placement per week. Prerequisites: ED 121, ECH 235.
- ECH 240:** **NUTRITION AND THE YOUNG CHILD** **1 s.h.**
Acquisition and appreciation of the role nutrition plays in the development of the young child. Students acquire knowledge, skills, and attitudes in planning nutritious meals and snacks. An awareness of the role of the family is emphasized. Offered on a two-year rotation.
- ECH 260:** **EARLY CHILDHOOD ENVIRONMENTS** **3 s.h.**
Provides information that will allow students to identify the characteristics of and design effective and developmentally appropriate learning environments for young children that promote interaction, exploration, and knowledge construction. In addition, experiential opportunities will be developed which allow the student to apply this knowledge to various age groups of children. Prerequisites; ECH 231, 235.
- ECH 301:** **CHILD DEVELOPMENT AND GUIDANCE** **3 s.h.**
This course will provide information that will allow students to understand the process of child guidance and master techniques in child guidance. Through increased knowledge of child development, students will gain understanding of effective child guidance strategies. Experiential opportunities will be developed which allow the student to develop his or her own approaches to child guidance. Prerequisites: ECH 235, ECH 236; Must be taken concurrently with ECH 310, ECH 322, ECH 323, ECH 325. For straight ECH majors, ECH 413 must be taken with these courses.
- ECH 310:** **FAMILY-COMMUNITY COLLABORATION** **3 s.h.**
This course will provide information that will allow students to identify the benefits of family-teacher partnerships, methods for developing partnerships with families and community members. In addition, information related to Family Systems Theory, including the Ecological Systems Theory, collaborating with other professionals and role of the early childhood professional in the community, including advocacy will be discussed and practiced. Finally, experiential opportunities will be developed which allow the student to develop relationships and work collaboratively with families and community members.. Prerequisites: ECH 235, ECH 236; Must be taken concurrently with ECH 301, ECH 322, ECH 323, ECH 325. For straight ECH majors, ECH 413 must be taken with this course.

- ECH 322: CURRICULUM BASES FOR LEARNING AND TEACHING** **3 s.h.**
 Focuses on developmentally appropriate curriculum design and implementation for infants, toddlers, and young children ages three to eight. Emphasizes the child's and the teacher's roles in designing, integrating, and adapting curriculum and the physical setting where the curriculum is implemented to meet the needs and interests of all young children including those with disabilities, developmental delays, or special abilities. Must be taken concurrently with ECH 323, 325, 413, and HPE 410. Prerequisites: ED 121, ECH 235, ECH 236, ECH/CSD 290, ECH 320.
- ECH 323: LITERACY AND THE YOUNG CHILD** **3 s.h.**
 Emphasizes three areas: (1) promoting the understanding a learning environment should match how children develop and learn literacy, (2) creating an integrated curriculum framework for birth through eight years that are linked to standards and benchmark competencies, and (3) enhancing the literacy development of children through appropriate interactions with families and caregivers. Must be taken concurrently with ECH 322, 325, 413 AND HPE 410. Prerequisites: ED 121, ECH 235, 236, ECH/CSD 290, and ECH 320.
- ECH 325: YOUNG CHILDREN AS THEORY BUILDERS** **3 g.h.**
 Explores the process and learning environment that will support, facilitate, and translate course-content areas of science, mathematics, social studies, and technology into a developmentally appropriate constructivist educational practice. Applies theoretical perspective of constructivism to enhance the young child's scientific traits of experimentation, curiosity, creativity, and theory testing. Must be taken concurrently with ECH 322, 323, 413 AND HPE 410. Prerequisites: ED 121, ECH 235, 236, ECH/CSD 290, and ECH 320.
- ECH 413: INTERACTIONS IN EARLY CHILDHOOD SETTINGS** **3 s.h.**
 Explores knowledge and skills needed to be a leader in early childhood. Emphasis will be placed on developing and managing a caring learning environment that enhances positive interactions among children, parents, staff, instructional teams, and community members. Grant writing, advocacy, and ethics of professionalism will be explored. Field experience will consist of a "Stand for Children" advocacy project..
- ECH 414: TEACHING AND LEARNING LANGUAGE AND LITERACY - GRADES 1-4** **3 s.h.**
 Overview of current definitions and basic approaches in literacy assessment and instruction in the primary grades. Investigates literacy development and important instructional considerations for teachers of learners in the primary grades. Prerequisites ECH 235, ECH 236, ECH 301, ECH 310, ECH 322, ECH 323, ECH 325. Must be taken concurrently with ECH 415, ECH 416, ECH 418 and HPE 410.
- ECH 415: LEARNING AND TEACHING MATHEMATICS: GRADES 1-4** **3 s.h.**
 Focuses on principles in teaching mathematics to young children, mathematics processes in early childhood, the National Council of Teachers of Mathematics Principles and Standards for School Mathematics, and involving and assisting parents and communities in understanding childhood development in mathematics. Field experience opportunities will allow the teacher candidate to plan and teach mathematics lessons to children in grades one through four. Prerequisites: Early Childhood Core ECH 235, 236, and Pre-K-K Block (ECH 301, ECH 310, ECH 322, ECH 323, ECH 325). Must be taken concurrently with ECH 414, ECH 416, ECH 418 and HPE 410.
- ECH 416: LEARNING AND TEACHING SOCIAL STUDIES: GRADES 1-4** **3 s.h.**
 This course coordinates theory and practice in the teaching of early childhood school social studies. It provides historical perspective, and examines current research, curriculum programs and trends, and methods and materials applicable to social studies teaching in a pluralistic society. ECH 416 emphasizes the development, selection, management and evaluation of materials and experiences that foster concept development, inquiry, and knowledge construction in social studies. The course also addresses the needs of diverse student populations, integration of content areas and application of technology. Field experience opportunities will allow the student to plan and teach social studies lessons to children in grades 1-4. Prerequisites: Early Childhood Core ECH 235, 236, and Pre-K-K Block (ECH 301, ECH 310, ECH 322, ECH 323, ECH 325). Must be taken concurrently with ECH 414, ECH 415, ECH 418 and HPE 410.
- ECH 417: TECHNOLOGY FOR EARLY CHILDHOOD EDUCATORS** **3 credits**
 This course is designed to facilitate future early childhood educators with the knowledge skills, and dispositions for integrating technology into their classroom instruction and for using technology to improve professional productivity. Students will explore the relationship among ISTE (International Society for Technology in Education) standards, and PA Learning Standards for eArly Childhood and those PA Academic Standards related to Pre-K-4 learners and the appropriate and effective uses of contemporary educational technology. These concepts will be applied to the development of instructional materials that can be used for assessing learning and promoting achievement for all students in grades Pre-K-4. Prerequisites: ED 121, ECH 235, ECH 236, acceptance in the early childhood certification, Pre-K Block. Each semester. Must be taken concurrently with ECH 414, ECH 415, ECH 416, ECH 418, and HPE 410.
- ECH 418: LEARNING AND TEACHING SCIENCE** **3 s.h.**
 Focuses on principles in teaching science to young children, scientific inquiry and processes in early childhood, the National Science Teachers Association and National Science Education Standards, and involving and assisting parents and communities in understanding childhood development in mathematics. Emphasis will also be placed on developing effective learning environments to promote science exploration, investigation and inquiry. Field experience opportunities will allow the teacher candidate to plan and teach science lessons to children in grades one through four. Prerequisites: Early Childhood Core ECH 235, 236, and Pre- K -K Block (ECH 301, ECH 310, ECH 322, ECH 323, ECH 325). Must be taken concurrently with ECH 414, ECH 415, ECH 416, ECH 417 and HPE 410.
- ECH 420: ISSUES AND ADVOCACY IN EARLY CHILDHOOD EDUCATION** **3 s.h.**
 Examines incidental learning of children through their interactions with the people and society's major institutions. In-depth exploration of the family as a diverse and primary institution influencing children and the interface with the educational and social systems. Analyzes current issues and public policies as related to systems theory. Topics vary by semester. Emphasizes advocacy and ethics of professionals to help young children cope with issues that affect them and will contribute to institutional change to meet the needs of young children. Prerequisites: ECH 322 and ECH 413 or equivalent. Annually.

- ED 339:** *METHODS OF TEACHING AND EVALUATING MATHEMATICS* **3 s.h.**
Explores place and function of mathematics in secondary education, content improvement and evaluation of instruction in mathematics, acquaintance with current literature and research, and observation in secondary schools. Includes observations and teaching experiences in area schools. Prerequisites: ED 327 and nine hours of college mathematics. Fall, annually.
- ED 350:** *TEACHING ENGLISH LANGUAGE LEARNERS* **3 s.h.**
Introduces participants to background, methods, and strategies needed to effectively teach English Language Learners. Includes research and theory of second language acquisition, bilingualism, the difference between social and academic proficiency, and the roles that culture and language play in learning. Explores importance of native language support in achieving academic success and teacher's role in building a safe classroom where diversity of languages and cultures are welcomed and encouraged. Investigates culturally diverse students' values expressed through beliefs and behaviors. Requires active participation through class discussion, opportunities for practice-teaching, evaluation and development of materials and instructional plans, reflection and self-critique. Prerequisite: ED 121 or 122.
- ED 402/502:** *CREATIVE RESPONSE TO CONFLICT* **3 s.h.**
A study of the current research in the development of a classroom environment which fosters cooperation, communication, affirmation, and problem-solving for children as well as for teachers, staff, instructional teams, parents, support personnel, and other adults. Emphasizes human capabilities for resolving conflicts at various life stages and situations. Examines a range of discipline models as their implementation relates to the classroom environment. (Designed to be taken in conjunction with student teaching in the undergraduate program, or as an elective in the master's program.) Prerequisite ED 121 or 122 for undergraduate credit. Summer only, on demand.
- ED 403:** *FIELD EXPERIENCE AND METHODS IN ENVIRONMENTAL EDUCATION* **3 s.h.**
Focuses on methods used to teach environmental knowledge, concepts, and concerns, including the history and research in environmental education. Examines the relationship of all curriculum areas to environmental education. May be taken for graduate credit with the approval of the Education Department chair and the instructor. Offered on demand.
- ED 406/506:** *GENDER ISSUES IN EDUCATION* **3 s.h.**
Examines the ways in which schools perpetuate gender bias and how educational institutions, as a reflection of the patriarchal society in which they exist, provide different experiences and outcomes for female and male students and teachers. Prerequisite: ED 110 or WS 100 or consent of instructor.
- ED 409/509:** *FIELD-BASED MULTICULTURAL EDUCATION: OBSERVATION AND ANALYSIS OF THE URBAN CLASSROOM* **3 s.h.**
Provides opportunities for pre-service teachers, both elementary and secondary education majors, and both undergraduate and graduate students, to interact with teachers and students in urban public schools whose backgrounds are different from their own. Analyzes the goals, rationale, meaning, assumptions, and necessary school conditions for effective teaching and learning in multicultural/multi-ethnic, urban schools, fostering multicultural competencies and preparing prospective teachers for multicultural/multi-ethnic, urban classrooms. Emphasizes interpersonal and pedagogical skills needed for success of teachers and learners in urban schools. Includes community service in neighborhoods near the host school. Prerequisite: ED 110, 121 or 122. Each summer, on demand.
- ED 414:** *LITERACY TRAINING* **3 s.h.**
Enables student volunteers to teach in literacy programs aimed at adult and secondary school learners in different settings. Integrates basic methods for instruction in vocabulary, comprehensive study skills, and writing with the aim of fostering an appreciation for reading. Open to all university students regardless of major. Prerequisites: 2.50 QPA minimum, sophomore or above standing, and consent of instructor.
- ED 417** *TEACHING WITH TECHNOLOGY* **3 credits**
This course is designed to facilitate future educators with the knowledge skills, and dispositions for integrating technology into their classroom instruction and for using technology to improve professional productivity. Students will explore the relationship among technology standards and academic standards related to Pre-K–12 learners and the appropriate and effective uses of contemporary educational technology. These concepts will be applied to the development of instructional materials that can be used for assessing learning and promoting achievement for all students in grades Pre-K–12.
- ED 420:** *INDIVIDUALIZED INTERVENTION FOR STUDENT TEACHING* **3-6 s.h.**
Professional development program of intervention designed for students who require individualized experiences to successfully demonstrate professional knowledge and competencies in school and agency settings. Implementing an Individualized Intervention Plan (IIP) prepares students for successful field experiences and enables them to develop the knowledge, skills, and attitudes needed to become successful classroom practitioners. Does not fulfill the student teaching requirement. Prerequisites: Recommendation of director of field services, university student teaching supervisor, Elementary/Secondary Block Committee, and/or Education Department chair. Completion of 90 semester hours, satisfactory standing in admission and retention standards in the college, completion of all required professional courses in certification area with a minimum grade of C, a cumulative QPA of 2.8, and meets university residence requirements. On demand.
- ED 421:** *MODERN LANGUAGES STUDENT TEACHING* **6 s.h.**
Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in elementary and secondary school settings. After an orientation to the school setting, the student teaches under the direction of a cooperating professional and university supervisor. Two field assignments will offer diversity in grade levels K-12 ability levels of pupils, content areas, school and community size, multicultural settings, and/or cooperating professionals. Prerequisites: Completion of 90 semester hours, satisfactory standing in admission and retention standards in college, completion of all required professional courses in certification area with a minimum grade of C, a cumulative 2.75 QPA, and meeting university residence requirements. Each semester.
- ED 423:** *LIBRARY PRACTICE IN THE SECONDARY SCHOOL* **6 s.h.**
Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in library settings in secondary schools. After an orientation to the school and library, the student participates in management, technical services, literary enrichment, and instructional activities under the direction of a cooperating professional and university supervisor.

ED 424/425: SECONDARY STUDENT TEACHING**6 s.h.**

Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in library settings in secondary schools. After an orientation to the school and library, students participate in management, technical services, literary enrichment, and instructional activities under the direction of a cooperating professional and university supervisor. Two field assignments offer diversity in grade levels, ability levels of pupils, content areas, school and community size, multicultural settings, and/or cooperating professionals. Prerequisites: Completion of 90 semester hours, satisfactory standing in admission and retention standards in the college, completion of all required professional courses in certification area with a minimum of grade of C, a cumulative 2.8 QPA, and meeting university residence requirements. Beginning Fall 2005, all required PRAXIS tests must be passed before student teaching.

ED 426: ENVIRONMENTAL EDUCATION STUDENT TEACHING**6 s.h.**

Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in an environmental education setting. After an orientation to the environmental education setting, the student will teach under the direction of a cooperating professional and university supervisor. Two field assignments will offer diversity in grade levels, ability levels of pupils, content areas, school and community size, multicultural settings, and/or cooperating professionals. Prerequisites: Completion of 90 semester hours, satisfactory standing in admission and retention standards in the college, completion of all required professional courses in certification area with a minimum grade of C, a cumulative 2.75 QPA, and meeting university residence requirements. Each semester.

ED 432/433: STUDENT TEACHING IN MUSIC**6 s.h.**

Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in music settings in elementary, middle, and secondary schools. After an orientation to the school and music settings, students teach classes and participate in choral and instrumental music activities under the direction of a cooperating professional and university supervisor. Two field assignments offer diversity in grade levels K-12 ability levels of pupils, content areas, school and community size, multicultural settings, and/or cooperating professionals. Prerequisites: Completion of 90 semester hours, satisfactory standing in admission and retention standards in college, completion of all required professional courses in certification area with a minimum grade of C, a cumulative 2.8 QPA, and meeting university residence requirements. Beginning Fall 2005 all required PRAXIS tests must be passed before student teaching. Each semester.

ED 434/534: WORKSHOP IN EDUCATION**3 s.h.**

Provides opportunities for in-service teachers to encounter new ideas, knowledge, and methods in meeting problems in today's schools. Prerequisite: Teaching experience in the elementary or secondary schools.

ED 439: METHODS OF TEACHING AND EVALUATING MODERN LANGUAGES**3 s.h.**

French, Spanish, as applicable to major. Introduces the psychological and linguistic foundations of modern language acquisition. Examines techniques of teaching modern languages and cultures, evaluative techniques for testing modern language acquisition, and long-range/short-range planning in teaching modern languages. Prerequisite: ED 327.

ED 450: INDEPENDENT STUDY**1-3 s.h.**

Provides students with opportunity to explore an area of special need or interest in education in-depth, under the supervision of a member of the department. Students develop a proposed study plan and secure the approval of the proposed director and department chair before registration. Prerequisite: Junior or senior standing.

ED 490: PROFESSIONAL SEMINAR IN SOCIAL STUDIES**1 s.h.**

Examines problems, practices, regulations, and other information relevant to social studies majors during their student teaching semester. Using a constructivist approach, students will reflect on and apply: federal and state law relevant to the work of student teachers and beginning teachers, student teaching objectives and educational objectives of student teaching centers, professional ethics, function of professional organizations, Praxis preparation, classroom management and conflict resolutions strategies. Prerequisite: Secondary block. Each semester.

ED 499/599: SPECIAL TOPICS IN EDUCATION**1-3 s.h.**

Examines current topics and issues in education. Topics, announced in advance, focus on the needs and interests of educators.

Middle-Level Education Courses**EDML 322: TEACHING ELEMENTARY AND MIDDLE SCHOOL SCIENCE****3 s.h.**

Focuses on the methods of presenting science to students in the middle grades (grades 4-8). Provides experiences in learning process, scope and sequence of science concepts, methods of investigation and inquiry, problem solving, laboratory skills, scientific attitudes, curriculum design and review, observing and working with middle level school students, and developing, teaching and evaluating lessons.

EDML 324: TEACHING ELEMENTARY AND MIDDLE SCHOOL MATHEMATICS: 4-8**3 s.h.**

Focuses on principles in teaching mathematics to all young adolescents in the middle grades 4 — 8, mathematics processes in the middle grades, the National Council of Teachers of Mathematics Principles and Standards for School Mathematics, the Pennsylvania Department of Education Academic Standards for Mathematics, and involving and assisting parents and communities in understanding young adolescent development in mathematics. Prerequisites: MATH 111 and MATH 211. Must be taken with as a part of EDML JUNIORBLOCK. Each semester.

EDML 325: METHODS OF TEACHING ELEMENTARY AND MIDDLE LEVEL SOCIAL STUDIES**3 s.h.**

This course for teachers of students in grades 4-8 emphasizes the development, selection, management and evaluation of materials and experiences that foster concept development, inquiry, and critical thinking in social studies. The course also addresses the needs of diverse student populations, integration of content areas and application of technology.

- EDML 329: EDUCATIONAL ASSESSMENT** **3 s.h.**
Examines construction, selection, administration, interpretation, and utilization of evaluation techniques and instruments, including statistical interpretations. Emphasizes analysis of standardized tests applicable to various content areas, as well as the construction and utilization of qualitative assessment techniques. This course, for middle level/elementary education students, is taken with the Junior methods courses (block(s)). Each semester.
- EDML 332: CONNECTING LITERATURE AND LITERACY IN THE MIDDLE GRADES** **3 s.h.**
Surveys appropriate literature and a variety of expository and narrative texts, emphasizing development of a knowledge base for using meaningful, appropriate texts to enhance comprehension, fluency, and vocabulary development as well as a rich general knowledge base. Focuses on the history and development of literature for children and adolescents, evaluation and selection criteria, literature representative of diverse cultures, the most recent areas of expansion in literature for the middle grades and its uses in developing content area knowledge and supporting literacy learning and development. Each semester. Prerequisite: Admission to the certification program.
- EDML 333: CONTENT LITERACY IN THE MIDDLE GRADES** **3 s.h.**
Overview of current definitions and basic approaches in intermediate and middle grades literacy assessment and instruction. Familiarizes students with techniques, strategies, and materials used to provide literacy instruction and assessment for intermediate and middle grade levels. Each semester. Prerequisites: Admission to the certification program; BLED 327, BLED 329.
- EDML 334: INTEGRATED LANGUAGE ARTS IN THE MIDDLE GRADES** **3 s.h.**
Reflects an integrated approach for teaching language arts throughout the middle grades. Mirrors the constructivist approach to teaching. Bases teaching strategies on cognitive, psycholinguistic, and sociolinguistic theories of how individuals learn to effectively communicate within a diverse society. Models standards-based strategies for teaching the six language arts across the middle grade curriculum. Authentic assessment of both process and product is emphasized. Each semester. Prerequisite: Admission to the certification program.
- ECH 424/425: EARLY CHILDHOOD STUDENT TEACHING** **6, 6 s.h.**
- EDML 424/425: MIDDLE LEVEL STUDENT TEACHING** **6, 6 s.h.**
- ED 424/425: SECONDARY STUDENT TEACHING** **6, 6 s.h.**
Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in school and agency settings. After an orientation to the school/agency setting, students teach under the direction of a cooperating professional and university supervisor. Two field assignments offer diversity to grade levels (Early Childhood: N-K, 1-4; Middle Level: 4-5, 6-8; Secondary: 7-9, 10-12), ability levels of pupils, content areas, school/agency and community size, multicultural settings, and/or cooperating professionals. Prerequisites: Completion of 90 semester hours, satisfactory standing in admission and retention standards in the college, completion of all required professional courses in certification area with a minimum grade of "C," a cumulative 2.80 QPA, and meeting university residence requirements. Each semester.

Science Education Courses

- SCED 205: LABORATORY EXPERIENCE IN SCIENCE** **4 s.h.**
Students will engage in basic scientific inquiries in biology, chemistry, physics, and earth science topics. Includes specific instruction in the nature of science and the scientific process, laboratory safety, experimental design, and scientific process skills. Prerequisites: Any science course, or taken concurrent with any science course.
- SCED 456: ELECTRONICS FOR THE HIGH SCHOOL SCIENCE TEACHER** **4 s.h.**
Intended for the science teacher who has had a little or no previous course work in physics or mathematics. Covers the fundamental law of electricity and magnetism, alternating current theory, and the theory and practical application of such devices as ammeters, voltmeters, oscilloscopes, vacuum tubes, transistors, power suppliers, amplifiers, and oscillators. Examples of some of these devices will be built in the laboratory, and general procedures for trouble-shooting faulty equipment will be illustrated. Summer only, on demand.
- SCED 460: SCIENCE CURRICULA IN THE MIDDLE AND JUNIOR HIGH SCHOOL** **3 s.h.**
Acquaints students with modern science curricula for the junior high/middle school levels. Stresses recent developments in curricula objectives, science content, teaching strategies, and laboratory activities. Individual projects included. Annually.
- SCED 463: ASTRONOMY : OBSERVATION AND FIELD STUDIES** **3 s.h.**
Examines experimental tools and methods useful in astronomy. Concentrates on mastery of important techniques and concepts by a "do-it-yourself" process, not an encyclopedic survey of astronomy. Complements courses in descriptive astronomy (ES 200 and 201 and SCED 550) rather than duplicating them, serving much the same purpose as a laboratory in astronomy. The student will build simple telescopes, spectroscopes, and other astronomical instruments. Summer only, on demand.
- SCED 466: FIELD PHOTOGRAPHY** **3 s.h.**
Teaches students how to use a modern camera and accessories to photograph subjects in the field. Includes techniques of close-up, telephoto, and wide-angle photography as well as lighting and composition. Provides students with opportunities to learn and practice techniques for photographing such objects as small animals, birds, flowers, large animals, and develop lessons for incorporating photography into science classrooms. Students provide digital camera. Summers only, on demand.
- SCED 476/576: SCIENCE, TECHNOLOGY, AND SOCIETY: TOPICS FOR TEACHERS** **3 s.h.**
Interdisciplinary course designed to acquaint with information, curricula, and teaching methodologies appropriate for integrating STS topics into science instruction. Includes topics in nature of science, history of science, history of technology, ethical decision-making, and the influences in changes in science and technology on society. Required for all secondary science education majors. Spring semester.
- SCED 485: PLANETARIUM OPERATION AND MANAGEMENT** **3 s.h.**
An introduction to the techniques of operation and maintenance of planetarium projectors. Opportunities are provided for writing and presenting programs at various levels of instruction. The use of auxiliary projectors, the production of audio-visual materials, multimedia displays, and live versus programmed presentations are emphasized. Prerequisite: ES 353 or consent of instructor. On demand.

SCED 499: SCIENCE STUDENT TEACHING SEMINAR 1 s.h.

All biology, earth science, and general science student teachers are required to meet for this seminar. Students must participate in small group discussions by asking questions that have arisen during the time since the last seminar and to share some of the practical techniques and ideas they have discovered. Students evaluated as to their willingness to seek out answers to their personal questions and to stimulate their peers with provocative questions and practical solutions. Prerequisite: Concurrent with student teaching.

SCED 576/BIOL476/ ES 476: SCIENCE, TECHNOLOGY, AND SOCIETY: TOPICS FOR TEACHERS 3 s.h.

Interdisciplinary course designed to acquaint students with information, curricula, and teaching methodologies appropriate for integrating STS topics into science and social studies instruction. Includes topics in nature of science, history of science, history of technology, ethical decision-making, and the influences of changes in science and technology on society. Required for all secondary science and social studies education majors. Spring Semester.

Health and Physical Education

Department of Health and Physical Education,
102 Tippin Gymnasium
Telephone: 814-393-2371
Website: www.clarion.edu/hpe

Associate Professors: Baschnagel, Truitt-Bean
Assistant Professors: Davis, Shannonhouse

Through its general education courses, the department provides students with extensive opportunities to develop sound health habits and life-long skills in a variety of sports and other physical activities.

ACTIVITY AND RECREATION COURSES (PERSONAL PERFORMANCE)

- HPE 121: Walking for Fitness..... 1 credit
- HPE 141: Badminton..... 1 credit
- HPE 142: Bowling..... 1 credit
- HPE 143: Golf..... 1 credit
- HPE 144: Racquetball (men’s rules) 1 credit
- HPE 145: Racquetball (women’s rules) 1 credit
- HPE 147: Beginning Tennis 1 credit
- HPE 150: Canoeing..... 1 credit
- HPE 161: Basketball (men’s rules) 1 credit
- HPE 162: Basketball (women’s rules)..... 1 credit
- HPE 163: Volleyball (men’s rules)..... 1 credit
- HPE 164: Volleyball (women’s rules) 1 credit

- HPE 170: Step Aerobics Challenge..... 1 credit
- HPE 181: Adapted Physical Education..... 1 credit
- HPE 185: Physical Fitness and Conditioning..... 1 credit
- HPE 186: Physical Fitness Through Strength Training..... 1 credit
- HPE 230: Basic Water Safety—Emergency Water Safety..... 1 credit
- HPE 231: Intermediate Swimming..... 1 credit
- HPE 247: Intermediate Tennis..... 1 credit
- HPE 330: Lifeguard Training..... 1 credit

HEALTH AND FIRST AID COURSES

- HPE 111: Health Education2 credits

EARLY CHILDHOOD AND MID-LEVEL EDUCATION COURSES

- HPE 323: Curriculum and Methods in Elementary Phys. Ed.....3 credits
- HPE 410: Motor Development and Learning.....3 credits

Active Military Service

The university grants a maximum of four credits in HPE for active military service of four months or more with honorable discharge or continued reserve status. Credit is normally given for HPE 111 (two credits) and two HPE activity courses of one credit each. To ensure credit is granted, students should bring an honorable discharge document to the Office of the Registrar, 122 Carrier.

Health and Physical Education Courses

Activity and Recreation Courses

The following activity courses are offered for fulfillment of the general education requirement. Courses emphasize the fundamental techniques, strategy, and rules of the activity.

- HPE 121: WALKING FOR FITNESS 1 s.h.**
Develop cardiorespiratory endurance through vigorous walking within individual target heart rate guidelines. Covers physical fitness principles, heart risk factors, body composition, and nutrition.
- HPE 141: BADMINTON 1 s.h.**
Emphasizes fundamental techniques, strategy, and rules.
- HPE 142: BOWLING 1 s.h.**
Emphasizes fundamental techniques, strategy, and rules.
- HPE 143: GOLF 1 s.h.**
Emphasizes fundamental techniques, strategy, and rules.
- HPE 144: RACQUETBALL (MEN’S RULES) 1 s.h.**
Emphasizes fundamental techniques, strategy, and rules.
- HPE 145: RACQUETBALL (WOMEN’S RULES) 1 s.h.**
Emphasizes fundamental techniques, strategy, and rules.

HPE 147:	BEGINNING TENNIS	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 150:	CANOEING	1 s.h.
	Explores the skills of the paddling strokes and involves the nomenclature of modern canoes and equipment. Includes rescue techniques and how to plan a river trip.	
HPE 161:	BASKETBALL (MEN'S RULES)	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 162:	BASKETBALL (WOMEN'S RULES)	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 163:	VOLLEYBALL (MEN'S RULES)	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 164:	VOLLEYBALL (WOMEN'S RULES)	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 170:	STEP AEROBICS CHALLENGE	1 s.h.
	Expands the student's understanding of overall fitness. Students utilize step benches to obtain cardiovascular conditioning and hand weights to strengthen muscles and improve endurance. Each semester.	
HPE 181:	ADAPTED PHYSICAL EDUCATION	1 s.h.
	Modified or corrective physical education course for those who by reason of illness or disability are unable to participate in the more vigorous forms of physical education activities. On demand.	
HPE 185:	PHYSICAL FITNESS AND CONDITIONING	1 s.h.
	Enables students to develop a fitness and conditioning program to fit their individual needs through knowledge gained in areas such as nutrition, use of conditioning equipment, weight control, and fitness tests.	
HPE 186:	PHYSICAL FITNESS THROUGH STRENGTH TRAINING	1 s.h.
	Covers all basic weight lifting techniques and modern principles for developing and improving an aerobic fitness for both male and female students.	
HPE 191:	CAMPING AND OUTDOOR RECREATION	1 s.h.
	Offers practical experience in the basic skills necessary for a successful camping excursion following conservation practices and techniques that retain the beauty of the wilderness ecosystems.	
HPE 230:	BASIC WATER SAFETY – EMERGENCY WATER SAFETY	1 s.h.
	Students must demonstrate advanced swimming skills. Designed for participants to become familiar with the hazards of water activities, to prevent accidents, and to respond effectively if an accident does occur. Successful completion of the course leads to Red Cross Certification.	
HPE 231:	INTERMEDIATE SWIMMING	1 s.h.
	Multi-stroke refinement, drown-proofing, and physical conditioning through swimming. Prerequisite: Students should be able to swim one length of the pool.	
HPE 247:	INTERMEDIATE TENNIS	1 s.h.
	Emphasizes fundamental techniques, strategy, and rules.	
HPE 330:	LIFEGUARD TRAINING	1 s.h.
	Successful completion leads to Red Cross Certification. Prerequisite: Swim 500 yards continuously, using four different strokes, dive to a depth of nine feet, and bring up a 10-pound object, and tread water for one minute.	

Mid-Level and Early Childhood Major Courses

HPE 323:	TEACHING HEALTH AND WELLNESS IN THE ELEMENTARY SCHOOLS	3 s.h.
	Required of all students majoring in elementary education. The class focuses on strategies for promoting the health of children both inside and outside the educational setting. Students will learn the importance of promoting a healthy lifestyle within the young and the importance of advocating for a healthy environment in which all children and adults may flourish. Students will plan learning activities to enhance the health knowledge, skills, attitudes, and experience of young children. Included are labs and field experiences in an elementary school setting.	
HPE 410:	MOTOR DEVELOPMENT AND LEARNING	3 s.h.
	Provides understanding of motor development and motor learning and how motor activities enhance the total development of young children. Emphasizes the design and implementation of open-ended, developmentally appropriate movement activities to stimulate problem solving and to be the cornerstone of an integrated curriculum. Additional focus on assessment of motor development and motor learning environments. Must be taken concurrently with ECH 320, 322, 323, 325, and 413. Prerequisites: ED 121, ECH 231, and ECH 235. Each semester.	

Health and First Aid Courses

- HPE 111:** *HEALTH EDUCATION* **2 s.h.**
 Focuses on wellness and health promotion. Emphasizes healthy behaviors in each of the five “Dimensions of Health” (mental, physical, social, emotional, environmental). Stresses skills and application of health knowledge for optimum wellness and disease prevention. Requirement for all students.
- HPE 235:** *INTRODUCTION TO ELEMENTARY HEALTH CONCEPTS AND PROMOTION* **3 s.h.**
 Introduces elementary education majors to basic health concepts and issues which elementary students face and which are important for developing an appropriate understanding of health education today. Fall, annually.
- HPE 314:** *CARDIOPULMONARY RESUSCITATION* **1 s.h.**
 Follows the recommendations and guidelines of the American Red Cross. Students earn an American Red Cross CPR Certificate upon successful completion of the course.
- HPE 317:** *FIRST AID AND SAFETY* **2 s.h.**
 Explores responsibilities and duties of the teacher in the development and teaching of programs in first aid and safety that are related to the student’s school and community. Includes the American Red Cross Standard First Aid Course.
- HPE 323:** *TEACHING HEALTH AND WELLNESS IN THE ELEMENTARY SCHOOLS* **3 s.h.**
 Required of all students majoring in elementary education. The class focuses on strategies for promoting the health of children both in and outside the educational setting. Students will learn the importance of both promoting a healthy lifestyle within the young and the importance of advocating for a healthy environment in which all children and adults may flourish. Students will plan learning activities that will enhance the health knowledge, skills, attitudes, and experience of young children. Included are labs and field experiences in an elementary school setting.

Library Science

Department of Library Science
Janice M. Krueger, Ed.D., Chair

209 Carlson Library
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Professors: Buchanan, Harhai, Miller
Associate Professors: Lillard, Maccaferri
Assistant Professor: Clark, Cook, Gardner, Ha

Library science makes use of a wide variety of traditional and emerging technologies to meet the world’s information needs. Librarians and other information professionals work in a variety of institutional settings, including school library media centers, public libraries, academic libraries, and special libraries (including business, government, law, and medical libraries). Students learn how to acquire, organize, and provide access to information in all formats while gaining experience with a wide variety of information systems and developing advanced database search skills. While baccalaureate students are eligible for Pennsylvania school library media certification and/or provisional certification as a public librarian, most professional library positions require a master’s degree from an institution accredited by the American Library Association (ALA).

Clarion University has offered undergraduate library education since 1937 and is one of only three universities in Pennsylvania to offer an ALA-accredited master’s degree—permitting students in any degree program to progress from a bachelor’s degree to a master’s degree without changing universities. Faculty represent a variety of specializations, including school media librarianship, public librarianship, reference services, organization of information, and information technology. Students have ready access to a variety of advanced information systems in the department’s

computer laboratory. Many courses feature early field experiences, and students can gain additional pre-professional experience through membership in student chapters of both the American Library Association and the Special Librarian Association.

The Department of Library Science offers one undergraduate major and offers one concentration. The primary focus of the department’s undergraduate program is the preparation of students for careers as school library media specialists. In this respect, the department plays a unique role within the commonwealth: it is one of only three institutions of higher education in Pennsylvania providing undergraduate school library media certification; it is the only such institution in western Pennsylvania; and it is the only institution in Pennsylvania providing both graduate and undergraduate school library media certification programs.

The Bachelor of Science in Education in Library Science degree program is a 120-credit major that prepares students for Pennsylvania School Library Media Certification, grades K-12. The program emphasizes field experiences and the use of advanced information technology. Pennsylvania School Library Media Certification, K-12, also is valid for initial certification in more than 40 other states. The following courses are required:

PROFESSIONAL EDUCATION COURSES	45 credits
ED 110: Introduction to Education	3
ED 122: Educational Psychology	3
ED 417: Adv. Edu. Technology	3
ED 225: Multicultural Education	3
ED 327: Instructional Strategies and Management	3
ED 329: Educational Evaluation	3
EDML 333: Teaching of Reading or SPED 381	3
ED 350: Teaching English Language Learners.....	3
or	
ENG 462 Meth. In Teach Eng. to Non Nat. Speakers	
or	
ED 423: Library Practice/Secondary S.T.	6



EDML 424: Library Practice/Elementary S.T.	6
SPED 418: Exceptionalities in the Regular Classroom.....	3
SPED 442: Differentiated Instruction.....	3
SPED 443: Prev & Treat of Acad Learning Problems	3

LIBRARY SCIENCE SPECIALIZATION	27 credits
LS 255: Introduction to Librarianship	3
LS 257: Basic Information Sources and Services	3
LS 258: Selection of Library Materials	3
LS 356: Media for Young Adults	3
LS 357: Organization of Information	3
LS 358: Media for Children	3
LS 361: Administration of Libraries	3
LS 385: Library Automation	3
LS 459: Media, Methods, and Curriculum	3

Students must also complete 48 credits in general education requirements. All library science specialization courses must be completed prior to student teaching.

Education majors may elect to pursue a double major in library science. The number of credits required for a dual secondary education/library science major varies depending on the education certification. In addition to the requirements for their elementary education or secondary education major, students complete 27 credits of library science specialization courses, plus 12 credits of student teaching.

Early Field Experience

The library science early field experience is a combination of intensive course work and field experience taken the Fall Semester prior to student teaching. Students enroll in prescribed courses and spend approximately 150 hours during three weeks in school library media centers. The prescribed early field experience course is LS 459: Media, Methods, and the Curriculum.

Students are encouraged to take LS 361 as part of the early field experience in semesters in which it is offered. Students will also benefit from taking a 300-level education course in conjunction with these library science courses.

Any student who completes a prescribed set of credits in library science can qualify for certification as a provisional public librarian in Pennsylvania.

The entry-level degree for most professional positions in libraries and information centers is a master's degree accredited by the American Library Association. The department's Master of Science in Library Science (M.S.L.S.) Program is one of only 56 such programs in North America. While no specific undergraduate preparation is required for admission into the M.S.L.S. program, all prospective students are advised to develop their technology skills. Good written and oral communication skills also are critical.

Library Science Courses

- LS 255:** **INTRODUCTION TO LIBRARIANSHIP** **3 s.h.**
 Broad overview of libraries and the profession of librarianship beginning with the history of libraries and concluding with the impact of electronic technology on libraries. Annually.
- LS 257:** **BASIC INFORMATION SOURCES AND SERVICES** **3 s.h.**
 Examines traditional and technological approaches to locating information. Analyzes the criteria for selecting reference materials and examines reviewing media for new reference sources. Explores the organization of reference service. Includes the study of selected reference sources. Biennially.
- LS 258:** **SELECTION OF LIBRARY MATERIALS** **3 s.h.**
 Provides familiarity with basic bibliographical tools, including current reviewing media and traditional and electronic publishing. Examines policies and criteria for the selection of and evaluation of book and nonbook resources. Biennially.
- LS 356:** **MEDIA FOR YOUNG ADULTS** **3 s.h.**
 Examines literature and other resources for young adults, including principles related to the selection, evaluation, and use of such materials. Considers and analyzes the reading interests of teenagers, the characteristics of young adult literature, and methods of introducing young adults to books and nonbooks resources, including electronic products and services. Examines techniques of developing/preparing book talks, reviews, reader advisory services, and other programs for young adults, with attention being paid to underserved and special needs groups. Biennially.
- LS 357:** **ORGANIZATION OF INFORMATION** **3 s.h.**
 Examines the organization of information, principles and methods of descriptive cataloging, and the structure and application of the Dewey Decimal Classification, Sears List of Subject Headings, and Library of Congress Subject Headings. Covers the creation, maintenance, and use of manual and automated library catalogs. Biennially.
- LS 358:** **MEDIA FOR CHILDREN** **3 s.h.**
 Surveys children's literature and related materials. Examines the principles of selection and evaluation of books, periodicals, and other materials for children. Includes reading guidance, with attention to materials for special groups; development of general and subject bibliographies; preparation of annotations; techniques of story-telling; and the selection of materials for the story hour. Includes a required field experience. Biennially.
- LS 361:** **ADMINISTRATION OF LIBRARIES** **3 s.h.**
 Addresses the general principles of administration and their application to the organization and management of different types of libraries. Core components include general management techniques and administrative procedures, budget preparation, human resources issues, and facilities and resources management. Students will learn how to apply standards for evaluation of libraries and how to develop functional library programs. Provides a forum for the discussion of the roles of different types of libraries in society. Includes a required field experience. Biennially.
- LS 385:** **LIBRARY AUTOMATION** **3 s.h.**
 Surveys the use of automation in libraries. Topics covered include the selection of computer hardware and software for instructional purposes; use of automated library systems for library management activities such as circulation, acquisitions, and cataloging; and the importance of computer networks to areas including resource sharing, professional development, and fiscal planning. Biennially.
- LS 455:** **SPECIAL TOPICS IN LIBRARIANSHIP** **3 s.h.**
 In-depth discussion, study, and research of a selected topic related to the role of the library in responding to social issues, service to special groups, or problem areas such as media and minorities, OCLC on-line bibliographic control, and media programs for the gifted. (Not creditable toward library science certification.) On demand.
- LS 457:** **INDEPENDENT STUDY / SEMINAR** **1-3 s.h.**
 Students explore in-depth a facet of librarianship according to need or interest, under the direction of a faculty member of the department. Special area to be approved by a faculty committee. Includes development of research techniques and the preparation of a scholarly paper or completion of a special project. On demand.
- LS 459:** **MEDIA, METHODS, AND THE CURRICULUM** **3 s.h.**
 Introduces planning for the effective use of school library media services in cooperation with the instructional staff. Examines school library media philosophies and educational objectives, the process of developing a library media program, and the librarian's role in designing curriculum, developing teaching-learning strategies, and working with teachers, students, and administrators. Includes a three-week practical experience in a school library media center. Prerequisites: LS 257, 258, either 356 or 358, and ED 327. Annually.
- LS 470:** **INTERNSHIP IN LIBRARIANSHIP** **3-6 s.h.**
 Provides a laboratory experience in the professional atmosphere of a cooperating library or information center; allows undergraduate students who are not interested in school librarianship an opportunity to have an applied field experience in a public or special library. Evaluation based on observation at the field site, an evaluative paper, and participation in professional seminars. Enrollment by permission of instructor. Each semester.
- LS 491:** **BUSINESS REFERENCE SOURCES AND SERVICES** **3 s.h.**
 Surveys the information sources and services typically found in corporate libraries, public library business information centers, and other specialized libraries with a business clientele. Includes in-depth examination of major business reference tools, as well as in-depth examination of the special operations, organization, and management of business libraries and departments of business information. As needed.

Music Education

The curriculum for majors in music education, leading to the Bachelor of Science in Education degree, combines a broad requirement in general education with advanced study in music theory, history and literature of music, applied music, specialized courses in music education and participation in performing organizations. The program prepares prospective public/private school teachers who specialize in music education with K-12 certification in instrumental, vocal, and general music. The emphasis of the program is twofold: the achievement of significant musical understanding and ability; and the development of teaching skills and techniques necessary for the effective communication of music understanding and abilities to others.

A high percentage of graduates find employment in their chosen fields. Increasing percentages attend graduate schools. Education graduates have secured teaching positions in districts, private and parochial schools, and church positions across the United States. The Bachelor of Science in Education degree (B.S.Ed.) in music education is fully accredited by the National Association of Schools of Music, National Council for Accreditation of Teacher Education, and the Pennsylvania Department of Education.

Prospective music majors are accepted in the department on the basis of an audition before a faculty committee from the Department of Music. Audition dates are scheduled throughout the academic year. Contact the Department of Music for additional information.

Program Requirements

GENERAL EDUCATION (48 s.h.)

The general education distribution for all students in the college is presented on page 44. Teacher education selection and retention standards are listed on page 151.

PROFESSIONAL EDUCATION

ED 110: Introduction to Education	3
ED 122: Educational Psychology	3
ED 327: Instructional Strategies & Management	3
ED 432: Student Teaching in Music	6
ED 433: Student Teaching in Music	6
MUS 289: Music Education Seminar	0
MUS 333: Elementary Music Methods	2
MUS 362: Instrumental Methods	2
MUS 363: Vocal Methods	2
SPED 418: Exceptionalities in the Regular Classroom ...	3
SPED 441: Teaching Students with Disabilities in the Secondary Classroom.....	3
SPED 442: Differentiating Instruction in Inclusive Settings.....	3

EARLY FIELD EXPERIENCE

Thirty hours of early field experience are required during the first four semesters of study. Ten hours are required in each of the following three areas: 1) elementary/general music, 2) secondary choral music, and 3) secondary instrumental music. The required 10 hours within each area must be completed under the supervision of at least two different music teachers. Contact the Department of Music office for complete early field experience requirements.

AREA OF SPECIALIZATION

MUS 126: Music Theory I	2
MUS 127: Music Theory II	2
MUS 128: Aural Skills I	1
MUS 129: Aural Skills II	1
MUS 226: Music Theory III	2
MUS 228: Aural Skills III	1
MUS 229: Aural Skills IV	1
MUS 345: Music From 1750 to 1900	3
MUS 346: Music From Antiquity to 1750	2
MUS 347: 20 th -Century Music	3
MUS 360: Basic Conducting	1
MUS 365: Instrumental Conducting	2
OR	
MUS 366: Choral Conducting	2
MUS 370: Orchestration/Arranging	2

PIANO PROFICIENCY (REQUIRED OF ALL BUT PIANO MAJORS*)

MUS 160: Piano Class I	1
MUS 161: Piano Class II	1
MUS 220: Piano Class III	1
MUSA 125: Applied Music: Piano	1

PIANO COMPETENCY EXAM

Piano competency is required of all music education majors in order to qualify for student teaching and graduation. A student may take the Piano Competency Exam at any time, but no later than the end of the sophomore year.

TECHNIQUES CLASSES

MUS: 182 Voice Class	s.h.
MUS: 243 Brass Class	1
MUS: 244 String Class	1
MUS: 245 Percussion Class	1
MUS: 247 Woodwinds Class	1

APPLIED MUSIC (LESSONS)..... 7

All matriculated music majors must elect applied music credits on their major instrument/voice each semester in residence.

PERFORMING ORGANIZATIONS..... 2

All music majors are required to participate in at least one performing organization each semester they are in residence (0 or 1 credit). Two performing organizations (0 or 1 credit) must be elected from large ensembles: MUSA 130/330,135/335, 136/336, 137/337, or 138/338. An additional two performing organizations (0 or 1 credit) must be elected from small ensembles: MUSA 131/331, 139/339, 142/342, 143/343, 144/344, 145/345, 301 or 302. All music education majors must elect and pass one course (0 or 1 credit) in each of the following areas, to be selected from the courses indicated, during their first four semesters in residence and prior to enrollment in music methods courses (MUS 333, 362, and 363): 1) choral ensemble = MUSA 130/330 or MUSA 131/331; 2) instrumental ensemble = MUSA 135/335, MUSA 136/336, 137/337, 138/338, or 301; and 3) marching band = MUSA 136/336.

APPLIED MUSIC SEMINAR

Students pursuing degree programs are required to elect MUS 110 and to attend the biweekly student recital series each semester in residence as part of their curricular and performance requirements.

JUNIOR/SENIOR RECITAL

Students in the music education degree program are required to present a senior recital in their major applied area in accordance with generally accepted musical, technical, and repertoire standards. The junior recital is optional. Students performing a junior or senior recital must perform a recital audition the semester prior to the semester in which the recital is to be performed. Students who successfully complete the audition process must elect MUS 110 and either MUS 310 for a junior recital or MUS 410 for a senior recital. Must be enrolled in applied lessons the semester the recital is performed.

**May be counted under General Education*

Special Education and Rehabilitative Sciences

Department of Special Education and Rehabilitative Sciences, Richard Sabousky, Ph.D., Chair

Special Education Center
 Telephone: 814-393-2325
 E-mail Address: rsabousky@clarion.edu
 Website: www.clarion.edu/department/spec

Professors: Clary, Feroz, Gent, Kilwein, Turner
Associate Professors: Sabousky, Sentner, Taylor
Assistant Professors: Gaggin, Kim, Swanger,
Instructor: Wynkoop

B.S. Degree in Special Education

Special educators are teachers who have received specialized training and certification to teach students with the cognitive behavior, and/or physical/health disabilities in Pre-K-12 settings. Special education, arguably one of the most challenging fields of education, requires teachers to use a variety of creative and critical thinking skills to develop and implement alternative instructional strategies and/or accommodations for individuals with disabilities.

The Special Education Program is nationally accredited and is highly regarded throughout the Mid-Atlantic region as a producer of high quality and skillful teachers. Personnel from school districts throughout the United States regularly visit Clarion campus to recruit graduates from the Special Education Program. Students who are accepted in Clarion’s Special Education Program will work with faculty who are experts in the field and earn the opportunity to participate in a variety of on- and off- campus field experiences involving increasing levels of responsibility and culminating in a student teaching experience. Student teaching generally occurs in districts in the Clarion region, but also includes sites in urban areas. Acceptance into the Special Education Program is contingent upon passing scores on the Praxis I, minimum 2.8 QPA in the first four semesters at Clarion, and Act 33, Act 34, and FBI clearances.

Early in the professional studies, the student is introduced to the major theories, paradigms, and knowledge bases from education, psychology, and learning theory, including an analysis of models and theories of human exceptionality

in learning, along with significant historical events and influences. During this period, the student, through first-hand observations, becomes acquainted with a diverse array of service delivery options, related professional roles, and persons with disabilities.

Students focus on an in-depth understanding of the specific disabling conditions, relevant variables and assessment procedures and their related implications for learning and instruction. During this period of study, the student is required to engage in a specified number of field experiences that move the student from observation into direct experience and interaction with individuals with disabilities.

In the next phase, the student further extends and refines the knowledge and skill base through applications in specifically selected field placements and supervised projects. During the final undergraduate semester, the student engages in student-teaching experiences under joint supervision and guidance of a selected cooperating professional and department faculty. The program is currently approved by the Pennsylvania Department of Education. The Special Education certificate is no longer a “stand alone” certificate. Chapter 49 now requires that all Special Education certifications be combined with certification in either PK-4, 4-8, a secondary subject area, or reading. Students who wish to teach high school students with special needs will be required to be certified in secondary area content.

Professional Education and Area of Specialization

SPED 128: High Incidence Exceptionalities	3
SPED 129: Low Incidence Exceptionalities	3
SPED 245: Applied Behavior Analysis.....	3
SPED 350: Seminar-Contemporary Issues in Special Education	2
SPED 381: Special Reading and Written Expression	3
SPED 411: Ed. Assessment Practicum	1
SPED 422: Special Education Classroom Admin.....	3
SPED 444: Meth & Pract – High Incidence	3
SPED 446: Meth & Pract – Low Incidence	3
SPED 426: Clinical Pract for High Inc. Dis	1
SPED 427: Clinical Pract for Low Inc. Dis	1
SPED 428: Assistive Technology	1
SPED 450: Student Teaching	6
SPED 462: Educational Assessment	3
SPED 482: Special Math Instruction	3

SPECIAL EDUCATION CERTIFICATION CORE..... 33 CREDITS

SPED 128: High Incidence Exceptionalities	3
SPED 129: Low Incidence Exceptionalities	3
SPED 245: Applied Behavior Analysis.....	3
SPED 350: Contemporary Issues Spec. Ed.....	2
SPED 381: Special Reading and Written Exp	3
SPED 411: Ed. Assessment Practicum	1
SPED 422: Special Education Classroom Admin.....	3
SPED 426: Clinical Pract for High Inc. Dis	1
SPED 427: Clinical Pract for Low Inc. Dis	1
SPED 428: Assistive Technology	1
SPED 444: Meth & Pract – High Incidence	3
SPED 446: Meth & Pract – Low Incidence	3
SPED 450: Student Teaching	6
SPED 462: Educational Assessment.....	3
SPED 482: Special Math Instruction	3

MATHEMATICS REQUIRED RELATED ELECTIVES (12 CREDITS)

This area will be designed with the advisor to select courses to enable students to have enhanced mathematics content knowledge. These credits will be beyond the 6 credits of MATH 111/211 requirement. MATH 110-MATH 480, excluding MATH 010, MATH 050, MATH 290, and MATH 390, are acceptable credits for this requirement.

Masters of Education With Special Education Concentration and Middle Level Certification**CORE COMPETENCIES 6 CREDITS**

ED 520:	Introduction to Research	.....3
ED 578:	Professional Seminar	.....3

SPECIALIZATION COURSES.....21 CREDITS

SPED 462:	Educational Assessment *	.....3
SPED 472:	Assistive Technology	.....3
SPED 482:	Special Mathematics Instruction *	.....3
SPED 500:	Contemporary Issues in Special Education	.....3
SPED 522:	Special Education Classroom Administration	.....3
SPED 544:	Methods of Practicum High Incidence	.....3
SPED 546:	Methods of Practicum Low Incidence	.....3
SPED 567:	Seminar on ABA	.....3
SPED 580:	Special Reading Instruction	.....3
	Special Education/ Rehabilitative Science Elective ...	3 Credits

TOTAL.....30 Credits

* Completed in the mid-level undergraduate program
Student Teaching will occur after SPED 544 & 546 (block)

B.S. Degree in Rehabilitative Sciences

The Rehabilitative Sciences Program is an interdisciplinary program that combines the resources of the departments of psychology, sociology, health and physical education, and nursing with the resources of the Department of Special Education and Rehabilitative Sciences. The program prepares students for general human service positions in the areas of aging, developmental disabilities, or substance abuse. Graduates of the program assume a variety of positions, including case managers, residential program managers, therapeutic staff support, day service directors, rehabilitation program specialists, mental retardation personnel, substance abuse prevention specialists, activities directors, and similar positions.

Clarion's Rehabilitative Sciences program is accredited by the Council for Standards in Human Service Education (CSHSE) and highly regarded throughout Pennsylvania as a producer of high quality entry-level rehabilitation/ human service professionals. Students who enroll in Clarion's Rehabilitative Sciences Program will work with nationally recognized faculty in the field and will participate in a variety of on- and off-campus field experiences involving increasing levels of responsibility and culminating in a semester-long supervised field experience in a human services agency. Field experience opportunities are available throughout the region. Students are responsible for providing their own transportation to and from any field experience or internship placement(s). Acceptance into the Rehabilitative Sciences Program is contingent upon a 2.5 QPA in the first four semesters at Clarion and Act 33, Act 34 and FBI clearances.

Program Requirements**Area of Specialization**

I. REHABILITATIVE SCIENCE CORE.....	33 credits
REHB 126: Intro to Human Services	.....3
REHB 227: Neurological Disorders and Physical Impairments	.....3
SPED 245: Applied Behavior Analysis	.....3
REHB 250: Helping Relationship	.....3
REHB 460: Models of Human Services Delivery Systems	.....3
REHB 470: Assessment and Intervention Strategies	.....3
REHB 475: Administering Rehabilitation Delivery Systems	.....3
SW 211: Principles of Social Work	.....3
SW 212: Social Work with Groups	.....3
HPE 317: First Aid and Safety	.....2
COOP 377: COOP in Rehabilitative Sciences	.....3
REHB 378: Seminar in Coop 377	.....1

Concurrent with completion of the rehabilitative science core, students must complete one of the following options. These options are designed to provide students with opportunities to focus their studies on a particular human service consumer group or prepare for further study at the graduate-school level.

A. DEVELOPMENTALLY DISABLED CONCENTRATION.....29 credits

CSD 125: Intro to Communication Disorders	.....3
SPED 128: High Incidence Exceptionalities	.....3
SPED 129: Low Incidence Exceptionalities	.....3
ATSW 333: Fitness for Wellness	.....3
SPED 446: Methods/Practicum for Ind. with Low Incidence Disabilities	.....3
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 496: Seminar for REHB 495	.....1
REHB 496: Seminar for REHB 495	.....1
RELATED ELECTIVES – 10 credits	

B. GERONTOLOGY CONCENTRATION.....29 credits

SOC 353: Aging in American Society	.....3
NURS 365: Health Promotion for the Elderly	.....3
PSY 464: Theories of Counseling	.....3
PSY 467: Gerontological Psychology	.....3
REHB 430: Aging and the Human Services	.....3
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 496: Seminar for REHB 495	.....1
REHB 496: Seminar for REHB 495	.....1
RELATED ELECTIVES – 10 credits	

C. SUBSTANCE ABUSE CONCENTRATION.....29 credits

ATSW 333: Fitness for Wellness	.....3
SOC 351: Contemporary Social Problems	.....3
SOC 361: Sociology of Deviant Behavior	.....3
REHB 405: Substance Abuse	.....3
REHB 410: Prevention and Treatment Strategies in Substance Abuse	.....3
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 495: Field Experience in Rehabilitative Sciences	.....6
REHB 496: Seminar for REHB 495	.....1
REHB 496: Seminar for REHB 495	.....1
RELATED ELECTIVES	..... 10 credits

Pre-K–4th Grade (Early Childhood)/ Special Education (Pre-K–8th Grade)

Many employment opportunities exist in the state of Pennsylvania and throughout the country in pre-school and special education programs. The College of Education and Human Services offers a program of study which will provide students interested in working with students with special needs dual certification in special education and early childhood education. Students completing this program are qualified to teach in special education programs (K-8) and early childhood programs from pre-K to grade four, as well as in special education infant stimulation and preschool programs. Completion of the following requirements will lead to dual certification in special education and early childhood education:

PRE-K–4TH GRADE (EARLY CHILDHOOD) CORE	12 CREDITS
ED 121: Human Development and Learning	3
ECH 235: Observation: Constr ECH Base	3
ECH 236: Assess & Plan: Using EC Base	3
ED 350: English Language Learners	3
SPECIAL EDUCATION CORE	20 CREDITS
SPED 128: High Incidence Exceptionalities	3
SPED 129: Low Incidence Exceptionalities	3
SPED 245: Applied Behavior Analysis	3
SPED 381: Special Reading and Written Instruction	3
SPED 350: Seminar: Contemporary Issues in SPED	2
SPED 462: Educational Assessment	3
SPED 482: Special Mathematics Instruction	3

PRE-K–K BLOCK	15 CREDITS
<i>Must be taken concurrently</i>	
ECH 310: Family-Community Collaboration	3
ECH 322: Curriculum Bases for Learning and Teaching	3
ECH 323: Language, Literacy, and the Young Child	3
ECH 325: YC as Theory Builders	3
ECH 301: Child Development and Guidance	3
SPED BLOCK	13 CREDITS
SPED 411: Educational Assessment Practicum	1
SPED 422: Special Education Classroom Administration	3
SPED 426: Clinical Pract for High Inc. Dis	1
SPED 427: Clinical Pract for Low Inc. Dis	1
SPED 428: Assistive Technology	1
SPED 444: Methods and Practicum – High Incidence	3
SPED 446: Methods and Practicum – Low Incidence	3
GRADES 1–4 BLOCK	18 CREDITS
<i>Must be taken concurrently</i>	
ECH 414: Learning and Teaching Language and Literacy 1-4	3
ECH 415: Learning and Teaching Mathematics: 1-4	3
ECH 416: Learning and Teaching Social Studies: 1-4	3
ED 417: Advanced Educational Technology	3
HPE 410: Motor Development and Learning	3
STUDENT TEACHING	12 CREDITS
ECH 424: Student Teaching	6
SPED 450: Student Teaching	6
ADDITIONAL GENERAL EDUCATION TO TOTAL	126 CREDITS

Rehabilitative Science Courses

REHB 126:	INTRODUCTION TO HUMAN SERVICES	3 s.h.
Serves as an interdisciplinary orientation to the field of human services, including education, mental health, substance abuse, gerontology, disability, youth services, rehabilitation, and criminal justice. The history of philosophy of human services careers and function of human services agencies are explored with an emphasis placed on the reciprocal interactions between human service providers and their consumers. Each semester.		
REHB 211:	PARAEDUCATORS AND HUMAN SERVICES PRACTITIONERS	3 s.h.
Serves paraeducators functioning as instructional assistants in the classroom and those providing home-health and long-term care services in a variety of settings. Knowledge and practical skills in the history of the profession; legal requirements and parameters; mental, physical, and emotional conditions affecting students and clients; roles and responsibilities; communication; effective strategies and techniques; and required tasks in a variety of work environments form the basis of the course. Venango Campus. Prerequisites: REHB 126.		
REHB 227:	NEUROLOGICAL DISORDERS AND PHYSICAL IMPAIRMENTS	3 s.h.
Presents the major physical disabilities, the reaction of family and individuals to the disability, therapeutic procedures, rehabilitation services, and direct contacts with persons with disabilities. Each semester on Clarion Campus, and Fall Semester at Venango Campus.		
REHB 250:	THE HELPING RELATIONSHIP PRINCIPLES AND PROCEDURES	3 s.h.
Assists students in acquiring knowledge and skill in the performance of required tasks and/or roles of rehabilitative service staff in developing humanizing environments for persons with disabilities in various settings. Prerequisites: REHB 126. Each semester.		
REHB 295:	FIELD EXPERIENCE	6 s.h.
A half-time, full-semester field experience in selected programs. Focuses on assisting in the delivery of human/educational services to persons with disabilities. Prerequisites: Minimum of 45 semester hours. Offered at Venango Campus.		
REHB 296:	SEMINAR FOR REHB 295	1 s.h.
This required companion course to REHB 295 will enable students to have the opportunity to come together to discuss their field experiences in a structured seminar setting. This will provide them with the opportunity to better understand and integrate agency activities such as assessment, treatment planning, team meetings, case management, and therapeutic interventions. In addition, the students will be able to discuss and appreciate agency policies, procedures, and interpersonal communication.		
REHB 378:	SEMINAR FOR CO-OP 377	1 s.h.
This required companion course to COOP 377 enables students to have the opportunity to discuss their field experiences in a structured seminar setting, providing them the opportunity to better understand and integrate agency activities such as assessment, treatment planning, team meetings, case management, and therapeutic interventions. In addition, students discuss and appreciate agency policies, procedures, and interpersonal communication. Prerequisites: REHB 126, SPED 245, and REHB 250. Spring and Summer semesters.		

- REHB 405: SUBSTANCE ABUSE** **3 s.h.**
Participants study the physiological and psychosocial implication of drug or alcohol abuse, over-medication, and drug dependence, emphasizing intervention, advocacy, treatment, and prevention. Fall Semester.
- REHB 410: PREVENTION AND TREATMENT STRATEGIES IN SUBSTANCE ABUSE** **3 s.h.**
Participants engage in the study of societal pressures, attempts to prevent substance abuse, and treatment strategies along with the comparative analysis of efficacy. Prerequisite: REHB 405. Spring Semester.
- REHB 430: AGING AND THE HUMAN SERVICES** **3 s.h.**
Provides information related to older adult care management from the framework of human services systems. Concepts of client triage, assessment, planning, and brokering are reviewed within the context of indentifying problems associated with aging, identifying components of human services delivery systems, and case management skill development. Prerequisite: REHB 250.
- REHB 460: MODELS OF HUMAN SERVICES DELIVERY SYSTEMS** **3 s.h.**
Analyzes the purposes, structure, and context of the entire network of human services delivery models in Pennsylvania with comparative reference to selected models outside of Pennsylvania. Fall, annually.
- REHB 470: ASSESSMENT AND INTERVENTION STRATEGIES** **3 s.h.**
Features a practical hands-on-approach to assessment and intervention with a variety of specific populations. Target groups include people with mental retardation, mental disorders, and chemical dependency, as well as aging and adolescent populations. Covers fundamental issues, applied strategies, and assessment techniques leading to the formulation, implementation, and evaluation of therapeutic treatment plans. Prerequisite: REHB 460.
- REHB 475: ADMINISTERING REHABILITATIVE DELIVERY SYSTEMS** **3 s.h.**
A study of the business and personal aspects of functioning in and managing human services delivery systems. Examines organizing, operating, and managing human service systems relative to legal, economic, and personnel standards and practices. Prepares students to interact with legal, financial, and business experts in the operation and development of rehabilitation services. Prerequisite: REHB 460. Spring, annually.
- REHB 495: FIELD EXPERIENCE IN REHABILITATIVE SCIENCES** **3 s.h.**
A full-time, semester-long supervised experience that includes professional development experiences in community residential programs, vocational rehabilitation services, and MH/MR Base Service Units or similar social services. Prerequisites: REHB 460, REHB 470, and REHB 475. Each semester.
- REHB 496: SEMINAR FOR REHB 495** **1 s.h.**
This course will enable students involved in the REHB 495 Field Experience to have bi-weekly peer contact to assure that the qualitative experience involving knowledge and values are being appropriately integrated by the students. This type of seminar course is required by the Council for Standards in Human Service Education for students involved in fieldwork involving direct exposure to human service agencies and clients. It is designed to complement and enhance the supervised field experience. Prerequisites: REHB 460, REHB 475, and REHB 470. Each semester.

Waiver: Change in prerequisite may be made with approval of the department chair and course instructor.

Special Education Courses

- SPED 128: HIGH INCIDENCE EXCEPTIONALITIES** **3 s.h.**
This course provides an introduction to the prevalence, incidence, etiology, development, definitions, history, treatment approaches, service delivery options, and characteristics of individuals with high incidence exceptionalities, including mild mental retardation, learning disabilities, attention deficit hyperactivity disorder, emotional and behavioral disorders, and gifted and talented.
- SPED 129: LOW INCIDENCE EXCEPTIONALITIES** **3 s.h.**
This course provides an introduction to the prevalence, incidence, etiology, development, and characteristics of individuals with low incidence exceptionalities, including vision and hearing disabilities, physical disabilities, autism, moderate to profound retardation, deaf-blind, and multiple disabilities.
- SPED 211: INTELLECTUAL DISABILITIES** **3 s.h.**
This is a comprehensive study of the biological, psychosocial, and educational implications of intellectual disabilities, including a consideration of etiology; assessment and diagnosis; educational programs, including preschool and post school; adult social and vocational adjustment; national and local programs; and research. Prerequisites: one of the following three courses: REHB 126, SPED 128, and SPED 129.
- SPED 230: SOCIAL AND EMOTIONAL DISTURBANCES** **3 s.h.**
Focuses on the nature of social and emotional disturbances, and familiarizes the student with atypical behaviors, utilizing current classification systems and theoretical models. Emphasizes history, etiology, nature, characteristics, assessment, and treatment approaches. Prerequisites: SPED 128 and SPED 129.
- SPED 245: APPLIED BEHAVIOR ANALYSIS** **3 s.h.**
Focuses on principles of applied behavior analysis in the assessment and treatment of behavioral excess or deficiencies. Students will design programs to increase skill acquisition or reduce inappropriate behavior for either groups or individuals in special education or rehabilitative settings. Prerequisites: SPED 128 and SPED 129.
- SPED/GS 262: INTRODUCTION TO SERVICE LEARNING** **3 s.h.**
Provides an overview of service learning. Presents history, legislation, and theory relevant to service, in addition to the components and standards of service learning. Students will be prepared for service through readings in the subject area, sensitivity training, conflict resolution, and etiquette. Students will then spend 30 hours in community-based service activity at three of five priority sites. Students will reflect in writing upon their service and will attend weekly seminars. On demand.



- SPED 350:** *SEMINAR- CONTEMPORARY ISSUES IN SPECIAL EDUCATION* **2 s.h.**
 In this course, students will identify critical features that are essential for the implementation of a standards-based instructional delivery system. Students will review the components of a Response to Intervention (RTI) Instructional Delivery System and the application of the RTI process in meeting the instructional needs of all students. Prerequisites: SPED 128, SPED 129, and SPED 245.
- SPED 381:** *SPECIAL READING AND WRITTEN EXPRESSION INSTRUCTION* **3 s.h.**
 Provides students with specific data based strategies to teach reading and writing to students with disabilities. Prerequisites: SPED 128, SPED 129, and SPED 245.
- SPED 400:** *SPECIAL TOPICS* **1-6 s.h.**
 Deals with topical themes in special education to expand the knowledge and competence of teachers. Enrollment is by consent of the instructor. Summers only, on demand.
- SPED 411:** *EDUCATIONAL ASSESSMENT PRACTICUM* **3 s.h.**
 Participants conduct a child study in a school setting by selecting, acquiring, analyzing, and synthesizing information need for educational decision-making regarding an individual with disabilities or with a suspected disability, and using the results to develop an educational intervention plan. Prerequisites: SPED 462
- SPED 418:** *EXCEPTIONALITIES IN THE REGULAR CLASSROOM* **3 s.h.**
 Prepares students to deal with the nature and needs of the exceptional person in a regular classroom. Examines contemporary methods of identification, services for the exceptional individual, and legal aspects of the least restrictive environment. Each semester.
- SPED 422:** *SPECIAL EDUCATION CLASSROOM ADMINISTRATION* **3 s.h.**
 In addition to mastering instructional strategies and curricular content, today's special education teachers are required to be knowledgeable about various theories, policies, and procedures necessary for the complex daily administration of the special education program. Competencies included in this course will be: adapting the classroom environment to meet the physical, academic, and emotional needs of the students; classroom management techniques; development of the IEP, behavior and transition plans; and collaboration with other professionals, paraprofessionals, and parents. Prerequisite: To be taken as a part of SPED Block.
- SPED 426** *CLINICAL PRACTICUM FOR HIGH INCIDENCE DISABILITIES* **1 s.h.**
 This practicum places teacher candidates into field settings involving people with high incidence disabilities who use an individualized curriculum. Teacher candidates will match instruction with learner, goal, and curriculum characteristics; identify and implement appropriate instructional strategies and sequences; and evaluate the effectiveness of instruction. Prerequisites: SPED 128, 129, 245, 380, 462, 482. Must be taken concurrently with SPED 444.
- SPED 427** *CLINICAL PRACTICUM FOR LOW INCIDENCE DISABILITIES* **1 s.h.**
 This practicum places teacher candidates into field settings involving people with high incidence disabilities who use an individualized curriculum. Teacher candidates will match instruction with learner, goal, and curriculum characteristics; identify and implement appropriate instructional strategies and sequences; and evaluate the effectiveness of instruction. Prerequisites: SPED 128, 129, 245, 380, 462, 482. Must be taken concurrently with SPED 444.
- SPED 428** *ASSISTIVE TECHNOLOGY* **1 s.h.**
 Students learn how to assess assistive technology requirements for people with disabilities, make low-tech devices, and install and operate computer hardware and software applications in a laboratory experience.

- SPED 432:** *SPECIFIC LEARNING DISABILITIES* **3 s.h.**
 Focuses on the nature of specific learning disabilities. Includes history, definition, characteristics, assessment, strategies, and tactics of instruction and/or remediation, vocational implications, and federal and state laws and regulations in regard to the individual who is learning disabled. Prerequisite: SPED 245 and SPED 350. Once a year.
- SPED 440:** *INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR CULTURALLY DIFFERENT CHILDREN* **3 s.h.**
 A study of the process of individualizing instruction for children who are not members of the dominant culture and whose cultural membership significantly influences the educational process and school performance. Involves designing basic instructional sequences, selecting and matching media with learner and goal characteristics, identifying culture-appropriate instructional strategies, and evaluating the effectiveness of instruction. Summer only, on demand.
- SPED 441:** *TEACHING STUDENTS WITH DISABILITIES IN THE SECONDARY CLASSROOM* **3 s.h.**
 Prepares educators with the skills and knowledge to deliver and support instruction to students with disabilities in secondary classroom settings. Prerequisite: SPED 418. Each semester.
- SPED 442:** *DIFFERENTIATED INSTRUCTION IN INCLUSIVE SETTINGS* **3 s.h.**
 Focuses on planning, designing, and delivering differentiated instruction to an increasingly diverse general education population, including students with disabilities, students who are gifted, students at risk, and students with cultural differences. Prerequisite: Successful completion of SPED 128 and SPED 129 or SPED 418. Each semester.
- SPED 443:** *PREVENTION AND TREATMENT OF ACADEMIC AND LEARNING PROBLEMS* **3 s.h.**
 This course will review the practice of prevention and intervention in dealing with students who are academically deficient, including, response-to-intervention, scientifically based instruction, and the teacher, learner, curriculum interface. Prerequisite: SPED 418. Each semester.
- SPED 444:** *METHODS AND PRACTICUM FOR INDIVIDUALS WITH HIGH INCIDENCE DISABILITIES* **3 s.h.**
 This course is about individualizing instruction for students with mild and moderate disabilities. It involves designing basic instructional sequences, utilizing behavioral objectives, matching technology, learner and goal characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisite: to be taken as part of SPED Block. Each semester.
- SPED 446:** *METHODS AND PRACTICUM FOR INDIVIDUALS WITH LOW INCIDENCE DISABILITIES* **3 s.h.**
 This course is about individualizing instruction of students with low incidence disabilities. It involves designing basic instructional sequences, matching technology, learner and goal characteristics, identifying appropriate instructional strategies, and evaluating instructional effectiveness. Prerequisite: REHB 250 or to be taken as part of SPED Block. Each semester.
- SPED 450:** *STUDENT TEACHING* **6 s.h.**
 Observation and participation in teaching students with disabilities and in activities related to the performance of a teacher's work. Prerequisite: Student Teaching Block.
- SPED 455:** *PROFESSIONAL SEMINAR* **2 s. h.**
 Examines problems, practices, and regulations attending student teaching professional experiences. Coordinates the student teaching program with the educational objectives of the student teaching centers. Examines Pennsylvania school laws relevant to the work of the beginning special educator. Includes practical interpretations of professional ethics and the functions of professional organizations. Limited to student teachers. Each semester. Prerequisite: To be taken as part of student teaching.
- SPED 462:** *EDUCATIONAL ASSESSMENT* **3 s.h.**
 Assists students in acquiring knowledge and skills needed for decision-making regarding individuals with disabilities or suspected disabilities, and apply these skills in case studies. Prerequisites: SPED 128 and SPED 129.
- SPED 472:** *ASSISTIVE TECHNOLOGY* **3 s.h.**
 Students learn how to assess assistive technology requirements for people with disabilities, make low-tech devices, and install and operate computer hardware and software applications in a laboratory experience. Prerequisite: To be taken as part of SPED Block.
- SPED 482:** *SPECIAL MATHEMATICS INSTRUCTION* **3 s.h.**
 Provides students with specific data-based strategies to teach mathematics to students with disabilities. Prerequisite: SPED 128, SPED 129, SPED 245, and MATH 111.
- SPED 492:** *SPECIAL MATHEMATICS INSTRUCTION II* **3 s.h.**
 This course builds upon the content of Special Mathematics by providing students with mechanisms to deliver standards-based mathematics instruction to adolescents with disabilities.
- SPED 499:** *INDEPENDENT STUDIES IN SPECIAL EDUCATION* **1-3 s.h.**
 Provides students with an opportunity to explore an area of special needs or interest in special education in-depth under the supervision of a faculty member of the department. Students must develop a proposed study plan and secure the approval of the department chair prior to registration. Prerequisite: Junior or senior standing. Waiver: Change in prerequisite may be made with approval of department chair and course instructor.

General Studies Course

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

- SPED/GS 262:** *INTRODUCTION TO SERVICE LEARNING* **3 s.h.**
 Provides an overview of service learning. Presents history, legislation, and theory relevant to service, in addition to the components and standards of service learning. Students will be prepared for service through readings in the subject area, sensitivity training, conflict resolution, and etiquette. Students will then spend 30 hours in community-based service activity at three of five priority sites. Students will reflect, in writing, upon their service and will attend weekly seminars. Prerequisite: ENG 110. On demand.

Speech Pathology and Audiology
Department of Communication Sciences and Disorders
Colleen A. McAleer, Ph.D., Chair

113 Keeling Health Center
 Telephone: 814-393-2581
 E-mail address: cmcaleer@clarion.edu

Professors: Jarecki-Liu, McAleer, Savage
Assistant Professors: Kisiday, Linnan, Mason-Baughman,
 McCarthy, Staub

Leading to the Bachelor of Science in Speech Pathology and Audiology degree, this pre-professional program is designed to prepare the student for graduate study and the completion of professional requirements at that level. Full professional status, including certification by the American Speech-Language-Hearing Association and appropriate state licensure, requires completion of the master's degree.

In addition to the undergraduate program, the department offers a graduate degree in speech pathology and makes provisions for teacher certification following the completion of the Master of Science degree. The graduate program is accredited in speech language pathology by the Council on Academic Accreditation in Audiology and Speech Language Pathology of the American Speech-Language-Hearing Association.

SPEECH PATHOLOGY AND AUDIOLOGY, (B.S.) 54 credits
Required: CSD 125, 150, 156, 251, 257, 258, 352, 353, 460, 463, 467, 472, 475; ED 110; CIS 217; Psychology elective; SPED or Rehab Sci course; and MATH 221, PSY 230 or ECON 221.

Sequence of Courses

		<i>c.h.</i>	<i>s.h.</i>
FIRST SEMESTER			
CSD 125:	Introduction to Communication Disorders.....	3	3
CSD 150:	Speech Science	3	3
SECOND SEMESTER			
CSD 156:	Phonetics and Phonology.....	3	3
FIRST OR SECOND SEMESTER			
BIO	Biology Course.....	3	3
PHSC	Physical Science Course.....	3	3



THIRD SEMESTER			
CSD 251:	Anatomy of Speech and Hearing Mechanisms	3	3
CSD 257:	Developmental Sequences in Language and Speech	3	3
FOURTH SEMESTER			
CSD 258:	Language Disorders in Children.....	3	3
FIFTH SEMESTER			
CSD 352:	Speech Disorders	3	3
SIXTH SEMESTER			
CSD 353:	Adult Communication Disorders.....	3	3
SEVENTH SEMESTER			
CSD 460:	Introduction to Audiology	3	3
CSD 467:	Clinical Observation	3	3
CSD 475:	Augmentative and Alternative Communication	3	4
EIGHTH SEMESTER			
CSD 463:	Aural Rehabilitation	3	3
SEVENTH OR EIGHTH SEMESTER			
CSD 472:	Seminar in Speech Science.....	3	3

Speech Pathology and Audiology Courses

- CSD 125:** *INTRODUCTION TO COMMUNICATION DISORDERS* **3 s.h.**
 Introduces communication disorders. Encompasses the variety of problems humans may have in speech, language, and hearing. Focuses on the nature of such problems, their causes, their impacts on people, methods for their evaluation, and methods for their management. Includes an orientation to the professions of speech-language pathology and audiology.
- CSD 150:** *SPEECH SCIENCE* **3 s.h.**
 Analyzes models of the speech mechanism. Emphasizes normal aspects of the physiology and acoustics of speech production. Fall, annually.
- CSD 156:** *PHONETICS AND PHONOLOGY* **3 s.h.**
 Transcription of normal and deviant speech using the International Phonetic Alphabet. Applies phonetics and phonemics to language and speech pathology. Explores instruments used in speech and hearing. Spring, annually.
- CSD 251:** *ANATOMY OF SPEECH AND HEARING MECHANISMS* **3 s.h.**
 Study of the anatomy and physiology of the speech and hearing mechanisms. Fall, annually.
- CSD 257:** *DEVELOPMENT SEQUENCES IN LANGUAGE AND SPEECH* **3 s.h.**
 Study of the development of language and speech in the normal child. Normative data in speech and language development are studied.
- CSD 258:** *LANGUAGE DISORDERS IN CHILDREN* **3 s.h.**
 Provides students with an understanding of language disorders in children, etiological factors associated with them, diagnostic and evaluative techniques, and therapeutic methodologies. Prerequisite: CSD 257. Spring, annually.

DIVISION OF GRADUATE PROGRAMS

Arthur J. Acton, Ph.D.

Associate Vice President for Graduate and Extended Programs

108 Carrier Administration Building

Telephone: 814-393-2337

E-mail address: aacton@clarion.edu

Website: www.clarion.edu/gradprograms

Graduate Degree Programs

Clarion University of Pennsylvania offers graduate-level programs leading to the Master of Business Administration, Master of Education, Master of Science, Master of Science in Library Science, or Master of Science in Nursing degrees. The Master of Science in Library Science program is accredited by the American Library Association; the Master of Science program in Speech Language Pathology is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association; the Master of Business Administration program is accredited by AACSB International—The Association to Advance Collegiate Schools of Business; and the Master of Science in nursing program is accredited by the National League for Nursing Accrediting Commission (NLNAC).

Master of Business Administration—Campus and Online

Master of Education in Education

Curriculum and Instruction Concentration—Online

Early Childhood Concentration—Online

English Concentration—Blended/Hybrid

Literacy Concentration—Blended/Hybrid

Mathematics Education Concentration—Blended/
Hybrid

Reading Specialist Concentration—Blended/Hybrid

Science Education Concentration—Blended/Hybrid

Special Education Concentration—Blended/Hybrid

Technology Concentration—Online

World Languages Concentration—Blended/Hybrid

Master of Science in Biology

Environmental Sciences Concentration—Campus

Biological Sciences Concentration—Campus

Master of Science in Library Science

PA Library Science K-12 Certification—Campus and
Online

Master of Science in Mass Media Arts and Journalism— Online

Master of Science in Rehabilitative Sciences

Corrective Exercise Concentration—Campus and
Online

Master of Science in Speech Language Pathology— Campus

Master of Science in Nursing

Family Nurse Practitioner Concentration—Online
except labs and clinical

Nurse Educator Concentration—Online except labs
and clinical

Certifications

Early Childhood—Online

Instructional Technology Specialist—Online

PA Library Science K-12—Online

Post Masters Family Nurse Practitioner—Online
except labs and clinical

Post Masters Nurse Educator—Online except labs
and clinical

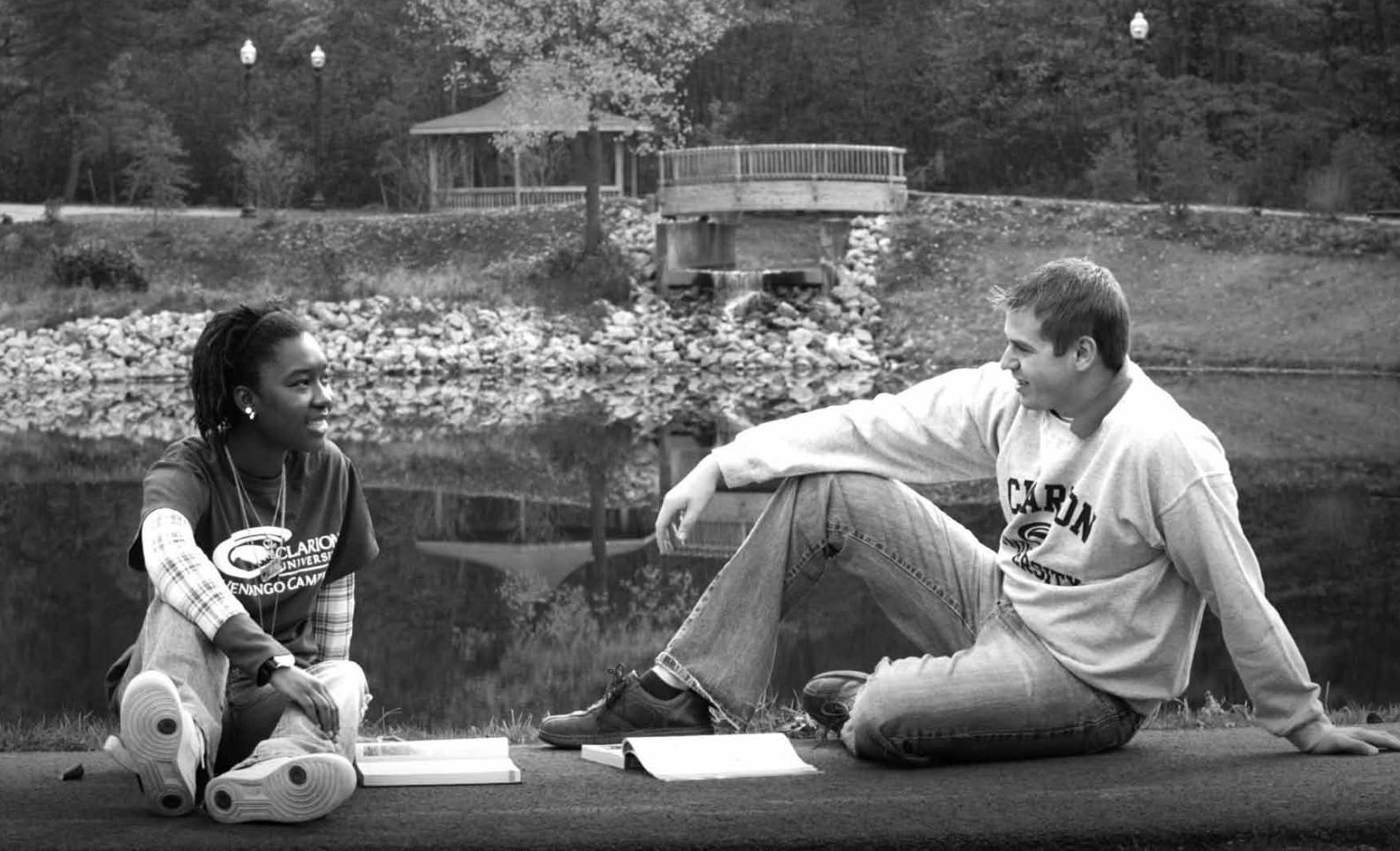
Reading Specialist Certification—Blended/Hybrid

Certificates

Advanced Studies in Library Science—Online

Public Relations—Online

For more detailed information on graduate curricula and courses, refer to the *Graduate Catalog* or online at www.clarion.edu/gradprograms or www.clarion.edu/catalog.



CLARION UNIVERSITY— VENANGO CAMPUS

Christopher M. Reber, Ph.D., Executive Dean

Frame Hall, Venango Campus

Telephone: 814-676-6591 or 877-VENANGO, ext. 1207

E-mail address: creber@clarion.edu

Website: www.clarion.edu/venango

Mission and Goals

Venango Campus, as an integral component of Clarion University, is committed to providing students with a high quality educational experience in a personal setting that allows for individualized services and support. Clarion University–Venango Campus grants two-year, stand-alone, associate degrees in 11 academic disciplines. The campus also offers select baccalaureate and master’s degrees and provides students an opportunity to begin any of Clarion University’s 90-plus bachelor’s degree programs. Clarion University–Venango Campus is home to the university’s School of Nursing and Allied Health, Department of Applied Technology, and

Venango Department of Arts and Sciences.

Clarion University–Venango Campus is responsive to the needs of the community and dedicated to developing innovative programs that meet the requirements of the local population. In addition to its academic degree offerings, Venango Campus offers 11 certificate programs providing critical job skills training. The campus also provides a range of continuing education courses. Special programs have been designed for young children, academically talented high school students who want to start earning college credits, returning adult learners, and older individuals.

To help all individuals excel, trained counselors work with students to assist with the transition to college life, improve learning and study skills, develop a career goal, and plan for success. Clarion University–Venango Campus also encourages students to be involved in a range of activities and clubs that provide social and leadership opportunities.

Admissions and Financial Aid

LaTrobe Barnitz, coordinator of admissions and financial aid

Frame Hall, Venango Campus

Telephone: 814-676-6591 or 877-VENANGO, ext. 1211

E-mail address: lbarnitz@clarion.edu or tnestor@clarion.edu

Website: www.clarion.edu/venango

Admissions

Admission policies and procedures of Clarion University–Venango Campus are the same as the general requirements for admission to the university at the Clarion Campus (page 16). In addition, Clarion University–Venango Campus offers unique programs for both traditional and non-traditional students needing extra support to ensure their success at the college level.

Through specialized student services and the Empowerment Program, Venango Campus provides proactive advising, mentoring, peer tutoring, and a structured environment that helps students achieve their goals and succeed in college. These services support the university's commitment to provide access to public education for all citizens of Pennsylvania.

Specialized Admission Procedures for the Associate of Science in Nursing Degree

See Department of Nursing Policies—Associate of Science in Nursing Program—Admission Requirements on page 192.

Specialized Admission Procedures for the Associate of Science in Respiratory Care Degree

See Department of Allied Health Policies—Associate of Science in Respiratory Care Program—Admission Requirements on page 200.

Early Admission for High School and Home-Schooled Students

Jump Start Education Program

The Jump Start Program at Clarion University–Venango Campus is designed to admit selected high school students to Clarion University on a part-time basis for summer, fall and/or spring.

This program provides high school students the opportunity to experience college work prior to high school graduation. The course work provides depth and a greater challenge than their high school curriculum and an early start on earning a university degree.

Admission Criteria

The following criteria determine admission of high school students to Jump Start at Clarion University:

1. Completion of the freshman year in high school.
2. Completion of the Jump Start application. Priority deadline for Fall is Aug. 1 and for Spring is Oct. 1.
3. Official transcripts that show enrollment in the academic or college preparatory program in high school while achieving the following:
 - a. 3.0 cumulative grade point average (85 percent) or top 20 percent of the class.
 - b. SAT of at least 1000 (CR & M) or ACT of 21. Students can also be considered with a PSAT of 100 or PSSA scores of Proficient or Advanced (at least one score must be advanced).

4. Recommendation to the dean of enrollment management by the student's guidance counselor and high school principal by way of a signature on the second page of the application. These signatures serve as support for the applicant's motivation, interest, academic ability, and social maturity.

5. Consent of parent or guardian by signature on the second page of the application.

The dean of enrollment management may arrange for an interview with the applicant and parents. The final decision rests with the dean of enrollment management.

Please direct materials and questions to:

LaTrobe Barnitz

Coordinator of Admissions and Financial Aid

Clarion University–Venango Campus

1801 West First Street, Oil City, PA 16301

814-676-6591, ext. 1211

or tnestor@clarion.edu

Financial Aid

Clarion University–Venango Campus provides financial aid services similar to those available at Clarion Campus. Individualized assistance is provided to students who need information or help with financial aid issues. The Clarion University–Venango Campus Office of Admissions and Financial Aid will help students complete state and/or federal forms for grants and loans, use books and computer software to help locate scholarships, and assemble information on personal budgeting, community resources, and developing a savings or investment plan.

Division of Continuing Education–Venango Campus

Hope Lineman, Coordinator of Continuing Education

Frame Hall, Venango Campus

Telephone: 814-676-6591 or 877-VENANGO, ext. 1273

E-mail address: hlineman@clarion.edu

The Division of Continuing Education at Venango Campus provides the community with a variety of customized course offerings and programs. Continuing Education activities fall into the following categories: Certificate Programs, College Level Exam Placement, *Kids in College*, Non-credit Offerings, and *SeniorLink*.

Certificate Programs

Certificate Programs provide students with skills needed for employment and/or promotion and can be designed on an individual basis. Certificates can be completed through credit courses, non-credit courses, or a combination of credit and non-credit course offerings. Examples of certificate programs include, but are not limited to, Administrative Medical



Assistant, Advanced Medical Technician, Dental Assistant, Executive Bookkeeping Assistant, Legal Office Management, Massage Therapy, Medical Coding, Medical Office Supervisor, Pharmacy Technician, Phlebotomy Technician, Production Supervisor, Program Evaluation for Public and Non-profit Agencies and Venango Vision Regional Leadership Institute.

College Level Exam Placement

Clarion University–Venango Campus offers College Level Exam Placement (CLEP) testing that allows students to earn college credit based on their knowledge in specific fields. More than five million people have used CLEP to complete their college degree in record time and save valuable tuition dollars. Tests are scheduled every other month throughout the year.

Kids in College

Kids in College is a multi-faceted program provided for children in the community in grades K-8. The program is designed to offer exposure to many topics such as art, math, music, science, technology, and more.

Non-credit Offerings

Non-credit offerings do not carry academic credit and do not require admission to the university. Reasons for pursuing non-credit courses include gaining job skills and personal and/or professional development.

SeniorLink

A program that educates adults about the use of computers, *SeniorLink* is designed for individuals 50 years of age and older. A variety of classes for beginner to advanced computer users is offered at a nominal fee.

Venango Campus Honors Program

Ellen A. Foster, Ph.D.

304 Montgomery Hall, Venango Campus
E-mail address: efoster@clarion.edu

David B. Lott, Ph.D.

222 Frame Hall, Venango Campus
E-mail address: dlott@clarion.edu
Website: www.clarion.edu/venango

The Clarion University–Venango Campus Honors Program presents associate and bachelor's degree-seeking students an opportunity to expand their intellectual and creative curiosities through enriched exploration of course content and co-curricular experiences.

The unique Honors experience allows students to collaborate one-on-one with accomplished faculty, studying conventional course content in greater depth and breadth. Complementing the coursework is a vibrant co-curricular program designed to enhance the academic experience and create a cohesive Honors student community. Designated honors courses, similar to those offered at the Clarion campus, may also be taken.

Capitalizing on the campus' small college environment and the faculty's commitment to student learning, Venango Campus is uniquely positioned to offer students a challenging, thought-provoking, and rewarding Honors experience.

Students must complete contracted Honors courses, acquire a set number of participation hours in the co-curricular program, and maintain a minimum QPA of 3.4. Once all requirements have been met, students will be eligible to graduate "with honors," a designation reflected on their transcripts and recognized formally at graduation.

Student Affairs at Venango Campus

Emily Aubele, Director of Student Affairs

114 Robert W. Rhoades Center, Venango Campus
Telephone: 814-676-6591 or 877-VENANGO, ext. 1269
E-mail address: eaubele@clarion.edu
Website: www.clarion.edu/venango

Clarion University–Venango Campus is a community in which all students are encouraged to explore their hopes and dreams and to achieve their full potential through participation in collaborative, innovative, and outcome-oriented co-curricular programs and services. Student Affairs promotes student learning and development through the provision of high quality programs and services designed to enhance students' educational experiences and prepare students to be contributing members of a local community and a global society. Student Affairs offers a variety of services that help students achieve personal, academic, and vocational goals.

Career Services

Mark B. Conrad, Coordinator of Career Services

230 Montgomery Hall, Venango Campus
Telephone: 814-676-6591 or 877-VENANGO, ext. 1373
Website: www.clarion.edu/venango

The Career Services staff assists students and alumni in all aspects of career exploration, career planning and preparation, and professional development. Venango Campus students are encouraged to use all services including skill and interest assessments, resume and cover letter development, interviewing skills and techniques, portfolio preparation, making career changes, and classroom presentations that cover a variety of career-related topics. Services are designed to help students maximize their employment options. Students receive assistance in selecting a college major or identifying academic interests.

Students are encouraged to gain practical hands-on experience in their fields of study, the community, and the workplace prior to graduation.

Through the Office of Career Services, students have the opportunity to learn more about themselves, their career options, and skills to remain marketable in a changing and competitive workforce.

Child Care

Child care is provided for Venango Campus students and employees, as well as the public, on a full-time, part-time, or drop-in basis. The YMCA Younger Days Child Care Center is located in Montgomery Hall. Financial support is available for qualified students.

Clarion Campus Opportunities

Students are invited to participate in a variety of activities at the Clarion Campus, including Greek life, musical productions, theatre productions, other cultural events, athletics, religious groups, and more.

Empowerment Program

Through specialized student services and the Empowerment Program, Venango Campus provides proactive advising, mentoring, peer tutoring, and a structured environment that helps students achieve their goals and succeed in college. These services support the university's commitment to provide access to public education for all citizens of Pennsylvania.

Dining Service

Food services are located in the Robert W. Rhoades Center, which is open Monday through Friday when classes are in session during the Fall and Spring semesters. Breakfast, lunch, and snacks are offered, including sandwiches, pizza, soups, and more.

Housing

Elizabeth S. Black Hall, Edward V. & Jessie L. Peters Hall, Michael F. and Joyce I. Hughes Hall, Leadership Hall, and Bradford George Carmack Barnes Hall are attractive, upscale apartment buildings offering students a private bedroom and a semi-private bathroom, shared kitchen facilities, and living and dining areas. Each apartment is fully furnished and houses four students. Rent includes all utilities including heat, air conditioning, Internet access, cable television, local phone service, and off-street parking. The complex of seven buildings, when complete, will include a mix of two- and three-story buildings housing a total of 136 students. All buildings include handicap-accessible apartments.

For more information about on-campus housing, call the Office of Student Affairs, Rhoades Center, at 814-676-6591, ext. 1269.

Learning Support Center

Ronald E. Radaker, Coordinator of Learning Support Services

319 Montgomery Hall, Venango Campus
Telephone: 814-676-6591 or 877-VENANGO, ext. 1344
E-mail address: rradaker@clarion.edu
Website: www.clarion.edu/venango

The Learning Support Center provides an array of academic support services, including the identification and counseling of study skills proficiency, individualized or group assistance, academic success workshops, resource materials for self-motivated learning, learning support groups, specifically designed study sessions for selected courses, and adaptive software for students with special needs.

Project P.A.S.S. (Promoting Academic Success for Students)

New students are encouraged to participate in *Project P.A.S.S.* workshops, which are an extended orientation for four weeks each semester. The seminars introduce participating students to important skills such as time management and study techniques and are designed to assist students in making a successful adjustment to college.

Personal Counseling

Students enrolled at Venango Campus have access to confidential professional counseling, support groups, and workshops offered by Counseling Services. The office can help students with concerns related to personal, social, and emotional adjustments. Counselors can also help individuals set developmental, educational, and career goals.

Sports and Recreation

Each year, students participate in softball, golf, volleyball, basketball, table tennis, pool, and bowling events. Intercollegiate competition is offered in various intramural and club sport programs. Students may also use the recreation and fitness equipment at the Oil City YMCA or use new exercise facilities available in the Robert W. Rhoades Center.

Student Government

Student Senate, the student governing body at Clarion University–Venango Campus, is composed of five returning students and four new students, all of whom are elected by the student body. The senate develops a budget for student events that is funded by the student activity fee and makes recommendations to the executive dean in the areas of policy and campus improvements.

Student Organizations and Events

Involvement is important to gain the most from the college experience. At Venango Campus, student organizations provide an opportunity for networking with other students who share common interests. By taking an active part in an organization, students learn career-related leadership skills and have fun, too. Special interest groups include:

- Allied Health Club
- Allies
- Adult Learners Organization
- Bowling Club
- Business Club
- Campus Activities Board
- Criminal Justice Club
- Equestrian Club
- Fitness Club
- Nursing Club
- Outdoor Club
- Paintball Club
- Paralegal Club
- Pennsylvania State Education Association (PSEA)
- Phi Theta Kappa (academic honorary)
- Photography Club
- Psychology Club
- Respiratory Care Club
- SEED (Studying, Engaging, Exploring, Discipleship)
- Ski Club
- Sports and Fitness Club
- Venango Campus Book Club
- Venango Campus Eagle Ambassadors
- Venango Veterans Club



A variety of social and cultural events are available at Clarion University–Venango Campus, including nationally-known performers and speakers, dances, service projects, ski and canoe trips, coffeehouses, and much more. Students play an integral part in planning campus events and projects. A variety of leadership workshops, which provide students the opportunity to enhance skills or learn new ones, are offered throughout the year. Many events are family-oriented, and students and families are encouraged to participate.

Charles L. Suhr Library

The Charles L. Suhr Library provides library resources, study facilities, and computers for Venango Campus students. The library contains 29,000 volumes and subscribes to 175 periodicals, as well as access to more than 7,000 full text journals via the Web. A computerized book catalog makes books from Suhr and Carlson libraries readily accessible to students on the Venango Campus. The periodical collection is supplemented by thousands of periodicals that the library makes available online. All library services, described under Libraries, are available to Venango Campus students. The Suhr Library is home to the Barbara Morgan Harvey Center for the Study of Oil Heritage. More information on Suhr Library is also available at www.clarion.edu/library/suhr.

Venango Parking and Automobile Regulations

Parking regulations, described in the Parking and Automobile Regulations section of this catalog, apply to Venango Campus. Applications for parking permits are available in the Administrative Office and may be used at Venango Campus and in designated commuter parking lots at Clarion Campus. Students at Venango Campus also may park only in designated student parking areas.

The Writing Center

The Writing Center supports all students in their efforts to become better writers and provides assistance with writing assignments in all subject areas.

Consultants at The Writing Center assist students at whatever stage of writing they need assistance. Writing consultants aim to motivate rather than control a writer by asking questions, offering feedback, and encouraging writers to talk through the thinking and planning process.

Academic Programs

Degree Listing

Administration Technology (A.A.S.-A.T.)
 Auctioneering
 Business Office Professional*
 Certified Web Designer*
 Insurance*
 Office Technology*
 Allied Health (A.S.)
 Arts and Sciences (A.A.)
 Business Administration (A.S.)
 General Management*
 Criminal Justice (A.S.)
 Early Childhood Education (A.S.)
 Industrial Technology (A.A.S.-I.T.)
 Biomedical Equipment Technology*
 CADD – Architectural*
 CADD – Mechanical*
 Carpentry & Construction Technology*
 CNC Machinist*
 CNC Operator*
 CNC/Machinist Technician*
 Computer & Network Administration*
 Electric Utility Technology*
 Electrical Arc Welding*
 Electricity – Maintenance & Construction*
 Electronic Engineering*
 Electronics Technician*
 Hardwood Lumber Inspector*
 Industrial Automation & Robotics Technology*
 Maintenance Technician*
 Mechatronics Technology*
 Natural Gas Technology*
 Network & Database Professional
 Plastics Technology*
 Quality Control*
 Refrigeration, Heating, Ventilation & Air Conditioning*
 Welding*
 Welding & Fabrication Technology*
 Paralegal Studies (A.S.)
 Legal Assistant*
 Liberal Studies (B.S.)
 Medical Imaging Sciences (B.S.)
 Radiologic Technology*
 Ultrasound*
 Nursing (A.S.N., B.S.N.)

Nursing (M.S.N.)
 Family Nurse Practitioner*
 Nursing Education*
 Rehabilitative Sciences (B.S.)
 Court and Community Services*
 Rehabilitative Services (A.S.)
 Respiratory Care (A.S.)

**academic concentrations*

To complete a Clarion University associate degree, a minimum of 30 credit hours must be completed on the Venango Campus. For Business Administration (A.S.) and Paralegal Studies (A.S.) students, these 30 credits must include the 12 credits required in the concentration and a minimum of 12 credits from the courses listed under the Business Core. The transfer of a specific associate degree to a specific baccalaureate program may incur deficiencies within the major.

FREE ELECTIVES SUFFICIENT TO TOTAL 60 CREDITS

Associate of Science: Early Childhood Education

The Associate of Science Degree in Early Childhood Education is designed to provide students with the knowledge and skills necessary to work directly with children from birth through age eight. Graduates from the associate degree program are educated to work with families and other professionals in a variety of child care-early education settings such as Head Start, child care centers, child development programs, public education classrooms, and early intervention programs. The program provides a strong foundation for individuals desiring to continue their education at the baccalaureate level. The associate degree program is offered completely online to provide the maximum flexibility for employed individuals. The program is designed to be completed on a part-time basis over a four-year period. The following program outline must be followed.

Sequence for Early Childhood Curriculum

FIRST SEMESTER	ED 121, ECH 240
SECOND SEMESTER	ECH 231
THIRD SEMESTER	ECH 234
FOURTH SEMESTER	ED 301
FIFTH SEMESTER	ECH 350
SIXTH SEMESTER	ECH 310 and ECH 322
SEVENTH SEMESTER	ECH 323 and ECH 325
EIGHTH SEMESTER	SPED 418
NINTH SEMESTER	ECH 413
TENTH SEMESTER	MATH 211, PSY 211, ANTH 211, or SOC 211
ELEVENTH SEMESTER	Fine Arts and Humanities Physical-Biological Sciences
TWELFTH SEMESTER	Literature Choice

General Education course appropriate for degree will be available on a rotating basis. Students are encouraged to contact their academic advisor.

Associate of Science: Business Administration

The Associate of Science in Business Administration is designed to provide an opportunity in post-secondary education not found elsewhere within the service area of Clarion University. After earning the associate degree, students who wish to further their education may continue at the baccalaureate level on the Clarion Campus.

Objectives

1. Ensure that each student has an exposure to general education and business fundamentals appropriate for associate-level degree education in business administration.
2. Prepare associate degree students for entry-level positions in business, industry, and government. Graduates may find jobs in sales, marketing, finance, or administrative areas of business.
3. Prepare aspiring students for entry into baccalaureate degree programs.

GENERAL EDUCATION (MINIMAL REQUIREMENT—20 CREDITS): ENG 111, CMST 113, HPE 111, PSY 211 or SOC 211, and nine credits of general education electives. Note: if ENG 110 is required as a result of the placement examination, it will be used as three credits of the general education electives.

BUSINESS CORE SUBJECTS (27 CREDITS): MATH 131, ECON 211, CIS 217, MGMT 120, ACTG 251, ACTG 252, BSAD 240, ENG 307, and ECON 221.

GENERAL BUSINESS MANAGEMENT CONCENTRATION (15 CREDITS): BSAD 241, FIN 170, MGMT 121, MGMT 227, and a three-credit business elective.

Associate of Science: Paralegal Studies

Clarion University's Paralegal Studies Program is designed to provide for the education of paralegals. A paralegal, or legal assistant, is a person qualified by education, training, or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs legal work for which a lawyer is responsible. A paralegal may not practice law. All of the courses required for this degree are offered at Venango Campus. Some of the courses also are offered at Clarion Campus.

Academic Requirement

The program is divided into three blocks of required courses. The general education and business core classes are required of all Associate of Science candidates to develop their ability to work and live as well-rounded and competent individuals in the business environment. The remaining courses are specialized legal courses designed to develop competence in substantive and procedural law.

GENERAL EDUCATION (MINIMAL REQUIREMENT—23 CREDITS): ENG 111, CMST 113, HPE 111, ECON 211, a MATH competency class from the following: MATH 110, 112, 131, 171, 222, 270, or 271, and nine credits of general education electives. Note: The general education electives must be selected from an approved list of general education courses. This list is available from the director of Paralegal Studies and can be viewed on the program's website at www.clarion.edu/paralegal.

PARALEGAL STUDIES CORE (18 CREDITS): ACTG 251, 252; BSAD 240, 241; CIS 217; and ECON 221.

LEGAL ASSISTANT CONCENTRATION (21 CREDITS): BSAD 238, 242, 246, 248, 249; and two of the following courses: BSAD 239, 243, 244, 247, 250.

FREE ELECTIVE (6 CREDITS): Students should use their free electives to tailor the paralegal studies degree to their individual career preference. The choice may be a law specialty course not counted in the concentration, political science, philosophy, or any other general education course of interest.

Associate of Science: Rehabilitative Services

The Associate of Science in Rehabilitative Services which is accredited by the Council for Standards in Human Service Education trains people to work in human service practitioner roles with people with special needs in human service agencies. They include, but are not limited to, the roles of life skills worker, life coach, classroom assistant, and human development assistant. Because these roles vary, the program offers both specialized and generic competencies. The two-year program culminates with a supervised field experience in a human service agency. Students are responsible for providing their own transportation to and from field experience sites. Students who enroll in the associate degree program will work with nationally recognized faculty in the field. Qualified students who have earned a 2.5 QPA may continue their study toward a bachelor's degree in special education or rehabilitative sciences and receive credit toward graduation for courses taken while earning an associate degree.

GENERAL EDUCATION		Cr.
ENG 111:	Writing II.....	3
CMST 113:	Public Speaking.....	3
PSY 111:	Psychology of Adjustment.....	3
PSY 211:	General Psychology.....	3
PSY 260:	Developmental Psychology.....	3
ED 122:	Educational Psychology.....	3
SOC 211:	Principles of Sociology.....	3
	Related electives.....	3
	Electives: humanities and natural science.....	3
	General or free elective.....	6
	TOTAL.....	36

REHABILITATIVE SERVICES CORE

REHB 126:	Intro to Human Services.....	3
REHB 211:	Paraeducators and HS Pract.....	3
REHB 227:	Neuro. Dis. and Phys. Impairments.....	3
SPED 128:	High Incidence Exceptionalities.....	3
SPED 129:	Low Incidence Exceptionalities.....	3
SPED 245:	Applied Behavior Analysis.....	3
REHB 250:	The Helping Relationship.....	3
REHB 295:	Field Experience.....	6
REHB 296:	Seminar for REHB 295.....	1
	TOTAL.....	28

Suggested Sequence

FIRST SEMESTER

REHB 126 :	Intro to Human Service.....	3
SPED 128:	High Incidence Exceptionalities.....	3
ENG 111:	Writing II.....	3
CMST 113:	Public Speaking.....	3
PSY 211:	General Psychology.....	3
	TOTAL.....	15



Associate of Science: Criminal Justice

The Associate of Science in Criminal Justice is designed to provide students with the knowledge and skills necessary to work within the criminal justice system. Graduates from the program will be prepared to seek entry-level positions in municipal, county, and state police agencies. Additionally, students can pursue careers as correctional officers or as support-level staff in juvenile residential facilities. Moreover, positions within the private safety/loss prevention sector may be available.



SECOND SEMESTER

REHB 211: Paraeducators and HS Pract.....	3
SPED 129: Low Incidence Exceptionalities.....	3
PSY 111: Psychology of Adjustment.....	3
PSY 260: Developmental Psychology.....	3
Elective: humanities or natural sciences.....	3
TOTAL.....	15

THIRD SEMESTER

REHB 227: Neurological Impairment and Physical Disorders.....	3
SOC 211: Principles of Sociology.....	3
ED 122: Educational Psychology.....	3
SPED 245: Applied Behavior Analysis.....	3
Elective: humanities or natural sciences.....	3
Electives: general elective.....	3
TOTAL.....	18

FOURTH SEMESTER

REHB 250 The Helping Relationship:.....	3
REHB 295 Field Experience.....	6
REHB 296: Seminar for REHB 295.....	1
Related electives.....	3
Elective: general elective.....	3
TOTAL.....	16

GENERAL EDUCATION	CR.
ENG 111: Writing II.....	3
Math Proficiency.....	3
Liberal Education Skills.....	3
Physical and Biological Sciences.....	3-4
Social and Behavioral Sciences.....	3
Arts and Humanities.....	3
HPE 111.....	2
TOTAL.....	20-21

CRIMINAL JUSTICE

Required Courses—18 Credits

CRJT 110.....	3
CRJT 235/SOC 236.....	3
CRJT 245.....	3
CRJT 260.....	3
CRJT 363/PS 363.....	3
CRJT 275.....	3

Additional Required Course—3 Credits

CRJT 255 or CRJT 399.....	3
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Related Courses—9 credits (Choose three from the following)

MGMT 121.....	3
PS 211.....	3
PSY 111.....	3
PSY 211.....	3
PSY 354.....	3
SOC 211.....	3
SOC 351.....	3
SOC 361.....	3

Criminal Justice Courses

- CRJT 110: INTRODUCTION TO CRIMINAL JUSTICE** **3 s.h.**
 Provides an overview of the justice system including processing offenders. Examines the nature of criminal law, causes of criminal behavior, and discusses the roles of various agencies including police, courts, and corrections. Fall and Spring semesters.
- CRJT 235/SOC 236: CRIMINOLOGY** **3 s.h.**
 Examines historical and contemporary attempts to explain the origins of criminal behavior and society's reaction to it from a variety of perspectives. Provides an understanding of how these theories have influenced the present criminal justice system. Annually.
- CRJT 245: CORRECTIONS** **3 s.h.**
 Provides students with an overview and analysis of the management and organization of correctional institutions. Discusses current practices and trends in the area of corrections including treatment of offender personalities. Annually.
- CRJT 255: JUVENILE JUSTICE** **3 s.h.**
 Examines the formal and informal methods of dealing with the problems of juvenile crime, including the ways in which procedures differ from those involving adult offenders. Provides an analysis of recent trends in juvenile courts and the control and treatment of juvenile offenders. Annually.
- CRJT 260: POLICING** **3 s.h.**
 Provides an overview of issues in policing and law enforcement as well as an examination of the practices of police agencies in the United States. Examines organizational structures for delivering police services and issues concerning police and community interactions. Annually.
- CRJT 275: SUBSTANTIVE CRIMINAL JUSTICE LAW** **3 s.h.**
 Examination of the preliminary crimes of solicitation, conspiracy, and attempt. An analysis of the specific elements of crimes against the person and crimes against property. A consideration of defenses to alleged criminal behavior is also undertaken. Annually.

- CRJT 363:** *CRIMINAL PROCEDURE* **3 s.h.**
 A study of law as it relates to arrest, search, and seizure with emphasis on present controlling legal decisions and historical development, philosophy, and public policy issues underlying these decisions. Annually.
- CRJT 399:** *CRIMINAL JUSTICE Co-op* **3 s.h.**
 Internship opportunities for students in their particular area of interest with local or state institutions. Three credit hours will be granted upon successful completion of all internship requirements. On demand.

Department of Arts and Sciences

Associate of Arts: Arts and Sciences

The Associate of Arts is a liberal arts degree program designed to provide the student with a range of experiences and a flexible educational program. To complete an associate degree, a minimum of 30 credit hours must be completed on the Venango Campus or online for students in a completely online program.

Suggested Program Outline

- I. Communication (12)*
 - ENG 111: Writing II
 - MATH 112: Excursions in Mathematics
 - CMST 113: Public Speaking
 - CIS 110: Introduction to Computer Information Systems
 - II. Humanities (12)*
 - MUS 111: Introduction to Music
 - ART 110: The Visual Arts
 - ENG 130: The Literary Experience
 - CMST 253: Introduction to the Theatre
 - III. Natural Science (12)*
 - BIOL 111: Basic Biology
 - PHSC 111: Basic Physical Science—Chemistry
 - PHSC 112: Basic Physical Science—Physics and Astronomy
 - ES 111: Basic Earth Science
 - IV. Social Science (12)*
 - PSY 211: General Psychology
 - SOC 211: Principles of Sociology
 - HIST 112: Early Modern Civilization
 - PS 211: American Government
 - V. Personal Development (2)
 - VI. Free electives (10)
- TOTAL: 60

*Because this is a liberal arts degree, substitution by equivalent course within the area of study is allowable with the permission of the academic advisor.

Bachelor of Science in Liberal Studies

The Bachelor of Science in Liberal Studies at Clarion University–Venango Campus offers students the flexibility to earn the degree through a blended program of traditional classroom instruction and online courses. Students who choose the suggested Venango Campus curriculum plan can earn two degrees: an Associate of Arts in Arts and Sciences degree is awarded after earning 64 credits; a Bachelor of Science in Liberal Studies degree is awarded upon completion of the 120-credit program. For more information about the Bachelor of Science in Liberal Studies degree, refer to page 91 in this catalog.

Department of Applied Technology

William S. Hallock, Ed.D., Chair

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Assistant Professor: Hallock

Associate of Applied Science: Administration Technology

The purpose of the Associate of Applied Science in Administration Technology degree is to provide students who have successfully completed, or wish to complete, significant technical education from licensed, certified, accredited, or otherwise qualified technical education organizations an opportunity to earn an associate degree from an institution of higher education. The Associate of Applied Science in Administration Technology degree:

1. provides necessary general education for students seeking an Associate of Applied Science degree.
2. provides appropriate familiarization with the software and office functions of commercial organizations.
3. provides an associate degree option for persons in technical aspects of general office insurance, and banking fields that incorporates office and specialty education from appropriate technical education providers.

GENERAL EDUCATION (MINIMAL REQUIREMENT—20 CREDITS):

ENG 111, CIS 217, HPE 111, three credits selected from at least one of the following physical and biological sciences: biology, chemistry, earth science, mathematics, physical science, and physics; three credits selected from at least one of the following social and behavioral sciences: anthropology, economics, geology, history, political science, psychology, and sociology; three credits from at least one of the following arts and humanities: art, English language and literature, humanities, intermediate foreign language and cultures, music, philosophy, speech, and theater.

ADMINISTRATION TECHNOLOGY MAJOR (12 CREDITS): MGMT 120, MGMT 210, plus six elective credits through the College of Business Administration.

Technical Courses: AT 299: Administration Field Training (28 CREDITS) in Insurance, Office Technology, Business Office Professional, Certified Web Design, or Auctioneering.

Students will select from the concentrations listed above and complete up to 28 credits of technical education in their selected area of emphasis at Preferred Systems, Inc., The Learning Center, or Erie Institute of Technology. The specific courses needed for each concentration can be found at www.clarion.edu/appliedtech-AT.



Associate of Applied Science: Industrial Technology

The mission of the Department of Applied Technology at Clarion University–Venango Campus is to provide students with comprehensive technical education and academic skills that match the needs of our community and the employers of our region.

The Department of Applied Technology was created to address high-priority workforce development needs in the region. Students will earn an Associate of Applied Science in Industrial Technology degree from Clarion University. Clarion University will provide the core curriculum of general education and business courses. The technical component of the degree will be provided by licensed, certified, accredited, or otherwise approved technical education partners.

Each program concentration of the Associate of Applied Science in Industrial Technology degree consists of a combination of multiple courses targeting specific skills commonly used in the industry, as well as general education and business courses. Students will be instructed in essential workplace technology and techniques while studying at their respective technical training partner locations (First Energy Corp., The National Hardwood Lumber Association, Precision Manufacturing Institute, Triangle Tech, The Learning Center, or Erie Institute of Technology). The remaining educational requirements of the program will be completed at Venango Campus and are outlined below.

Accreditations

The Industrial Technology is nationally accredited by the Association of Technology, Management, and Applied Engineering (ATMAE). ATMAE is recognized as the premier professional association for the accreditation of industrial technology programs in colleges, universities, and technical institutes. ATMAE accreditation ensures that the university has met a series of national standards to provide industry with highly competent employees and assures the graduate of an ATMAE-accredited program that they are receiving a marketable degree through relevant curricula. Clarion University's Industrial Technology program's accreditation followed a rigorous and comprehensive evaluation process.

Associate of Applied Science in Industrial Technology Program Outcomes

Students will:

1. demonstrate knowledge of industry standards for safety and compliance,
2. demonstrate the proper use of industrial equipment,
3. understand and apply proper techniques for analyzing and producing drawings,
4. differentiate technology processes and their applicability, and
5. demonstrate the skills needed to advance to areas of industrial supervision and seek continuing higher education.

Associate of Applied Science in Industrial Technology Program Goals

1. Ensure that programs of study remain current with industry standards and needs
2. Provide accessibility of the program to all students
3. Provide the highest quality atmosphere for instruction
4. Ensure graduate employability
5. Ensure a safe learning experience
6. Provide opportunity for graduates to continue their formal education
7. Provide a learning experience that will ensure student retention

Core Requirements:

The following course curriculum is to be completed by all Associate of Applied Science degree seeking majors and is the foundation for all concentrations within the Industrial Technology Program.

GENERAL EDUCATION: COMPLETE THE FOLLOWING SEVEN COURSES TO EQUAL 20 CREDITS

ENG 111, MATH 112, CIS 217, PHSC 112, PSY 211, CMST 113, HPE 111.

INDUSTRIAL TECHNOLOGY MAJOR: COMPLETE THE FOLLOWING FOUR COURSES TO EQUAL 12 CREDITS

MGMT 120, MGMT 121, ECON 211, INDT 301.

TECHNICAL COURSES: INDUSTRIAL FIELD TRAINING (INDT 299) 28 CREDITS

Students will select from the list of 25 available concentrations listed below and complete up to 30 credits of technical education in their selected area of emphasis at Precision Manufacturing Institute, Triangle Tech, The Learning Center, National Hardwood Lumber Association, FirstEnergy Corp, or Erie Institute of Technology. The specific courses needed for each concentration can be found at www.clarion.edu/appliedtech-INDT.

TECHNICAL CONCENTRATIONS

Biomedical Equipment Technology
 CADD – Architectural
 CADD – Mechanical
 Carpentry & Construction Technology
 CNC Machinist
 CNC Operator
 CNC/Machinist Technician
 Computer & Network Administration
 Electric Utility Technology
 Electrical Arc Welding
 Electricity – Maintenance & Construction
 Electronic Engineering
 Electronics Technician
 Hardwood Lumber Inspector
 Industrial Automation & Robotics Technology
 Maintenance Technician
 Mechatronics Technology
 Natural Gas Technology
 Network & Database Professional
 Plastics Technology
 Quality Control
 Refrigeration, Heating, Ventilation & Air Conditioning
 Welding
 Welding & Fabrication Technology

TOTAL CREDITS NEEDED FOR GRADUATION: 60 CREDITS

General Course Offerings

NOTE: Certain courses listed below are applicable to major fields. Students should consult the university catalog and their advisors to determine which courses should be taken for specific majors.

College of Arts and Sciences

ANTH	211	Anthropology	3
AS	100	College Reading/Study Skills	2
ART	110	The Visual Arts	3
ART	190	Teaching Art in the Elementary Grades	3
BIOL	111	Basic Biology	4
BIOL	200	Selected Topics	
BIOL	201	Basic Forensic Science	2
BIOL	258	Anatomy and Physiology I	3
BIOL	259	Anatomy and Physiology II	3
BIOL	260	Microbiology	3
BIOL	453	Pathophysiology: Endogenous Agents	4
BIOL	454	Pathophysiology: Exogenous Agents	4
CHEM	153	General Chemistry I	3
CHEM	163	General Chemistry Laboratory I	1
CHEM	154	General Chemistry II	3
CHEM	164	General Chemistry Laboratory II	1
CHEM	205	Nutrition	3
MMAJ	100	Explorations in Mass Communication	3
MMAJ	101	Message Design	3
MMAJ	140	Writing for the Media	3
CIS	110	Introduction to Computer Information Systems	3
CIS	217	Applications of Microcomputers	3
CIS	223	Computer Programming COBOL	3
CIS	226	Computer Systems Dev. with High-Level Tools	3
CIS	324	Data Structure and File Utilization COBOL	3
ENG	110	Writing I	
ENG	111	Writing II	3
ENG	130	The Literary Experience	3
ENG	244	Special Topics	
ENG	200	Composition and Literature	3
ENG	263	English Grammar and English Usage	3
ENG	307	Business Writing	3
ES	111	Basic Earth Science	3
GEOG	100	Introduction to World Geography	3
GEOG	257	Geography of the United States and Canada	3
HIST	111	Ancient and Medieval Civilization	3
HIST	112	Early Modern Civilization, 1300 to 1815	3
HIST	113	Modern Civilization, 1789 to the Present	3
HIST	120	United States History to 1877	3
HIST	121	United States History Since 1877	3
HIST	215	Topics in History - History of the Sixties	3
HIST	277	Vietnam: War and Peace	3
HIST	354	Recent American History	3
HUM	120	Humanities I: Antiquity Through the Middle Ages	3
HUM	121	Humanities II: The Renaissance to the Present	3
MATH	050	Basic Algebra	3
MATH	110	Intermediate Algebra	3
MATH	111	Mathematical Concepts in Grades K-8	3
MATH	112	Excursions in Mathematics	3
MATH	131	Applied Finite Mathematics	3
MATH	222	Elementary Nonparametric Statistics	3
MATH	232	Calculus for Business I	3
MUS	111	Introduction to Music	3
MUS	131	Fundamentals of Music	3
PHSC	111	Basic Physical Science: Chemistry	3
PHSC	112	Basic Physical Science: Physics and Astronomy	3
PHIL	111	Logic and Inquiry	3
PHIL	211	Introduction to Philosophy	3
PSY	211	General Psychology	3
PSY	225	Psychology of Adjustment	3
PSY	228	Human Behavior in Organizations	3
PSY	260	Developmental Psychology	3

PSY	331	Child Psychology	3
PSY	354	Abnormal Psychology	3
PS	210	Introduction to Political Science	3
PS	211	American Government	3
SOC	211	Principles of Sociology	3
CMST	113	Public Speaking	3
CMST	200	Interpersonal Communication	3
CMST	214	Business and Professional Speaking	3
CMST	225	Communication and Conflict	3
CMST	253	Introduction to Theatre	3

College of Business Administration

ACTG	251	Financial Accounting	3
ACTG	252	Managerial Accounting	3
ACTG	253	Factory Accounting	3
ACTG	254	Payroll Accounting	3
ACTG	255	Financial Statement Preparation and Analysis	3
ACTG	256	Income Tax Procedures and Forms	3
ECON	211	Principles of Macroeconomics	3
ECON	212	Principles of Microeconomics	3
ECON	221	Economic and Business Statistics I	3
FIN	170	Introduction to Finance	3
BSAD	238	Introduction to Paralegal Studies	3
BSAD	239	Family Law	3
BSAD	240	Legal Environment I	3
BSAD	241	Legal Environment II	3
BSAD	242	Methods of Legal Research	3
BSAD	243	Wills, Trusts, and Estates	3
BSAD	244	Administrative Law	3
BSAD	246	Civil Litigation	3
BSAD	247	Real Estate Law for the Paralegal	3
BSAD	248	Legal Writing	3
BSAD	249	Field Experience	3
MGMT	120	Introduction to Business	3
MGMT	121	Fundamentals of Management	3
MGMT	210	Essentials of Entrepren and Small Business Mgmt	3
MGMT	227	Applied Supervision	3
MGMT	228	Human Behavior in Organizations	3
MGMT	321	Organization Theory and Behavior	3

College of Education and Human Services

ED	110	Introduction to Education	3
ED	121	Human Development and Learning	3
ED	122	Educational Psychology	3
ED	217	Microcomputer Applications in the Classroom	3
ECH	231	Creativity in the Early Childhood Curriculum	3
ECH	235	Observation and Assessment in ECH setting	3
ECH	240	Nutrition and the Young Child	1
ECH	320	Developing Bases for Learning and Teaching	3
ECH	323	Language, Literature & The Young Child	3
ECH	325	Young Children as Theory Builders	3
ECH	413	Interactions in Early Childhood Setting	3
ECH	420	I & A in Early Childhood Setting	3
HPE	111	Health Education	2
HPE	121	Walking for Fitness	1
HPE	142	Bowling	1
HPE	163	Volleyball	1
HPE	314	Cardiopulmonary Resuscitation	1
HPE	317	First Aid and Safety	2
HPE	410	Motor Development and Learning	3
REHB	110	Human Exceptionalities	3
REHB	115	Human Relations	3
REHB	227	Neurological Impairments and Physical Disorders	3
SPED	220	Nature of Mental Retardation	3
SPED	230	Social and Emotional Disturbances	2
SPED	235	Specific Learning Disabilities	2
SPED	245	Behavior Management	3
SPED	250	The Helping Relationship: Prin. & Procedures	3
SPED	295	Field Experience	6



SCHOOL OF NURSING and ALLIED HEALTH

Sharon K. Falkenstern, Ph.D., CRNP, CNE, Director

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Department of Nursing

Lana J. Smith, M.S.N., CRNP, RNC, Chair

Department of Nursing
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Accreditation

National League for Nursing Accrediting Commission (NLNAC),
3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326
Phone: 404-975-5000
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www.nlnac.org

Degree Listing

Family Nurse Practitioner and Nurse Educator (M.S.N.)
Joint Clarion and Edinboro Universities Degree Program
Clarion University–Venango Campus, Oil City, Pa.
Clarion University, Clarion Campus, Clarion, Pa.
Clarion University–Pittsburgh Site, Pittsburgh, Pa.
Edinboro University, Edinboro, Pa.
Nursing (A.S.N., M.S.N.)
Nursing-RN Completion Program on-line (B.S.N.)
Nursing-RN-MSN Completion Program (B.S.N., M.S.N.)
Post-Master's Certificate (Nurse Education, F.N.P.)

Health care in the new millennium demands that nursing expand its caregiver focus to include highly specialized roles in health promotion, illness prevention, and care of the sick. The nursing faculty have met this challenge by developing nursing curricula that assimilate the changes and complexities inherent in today's society. Clarion University offers an associate degree program at Venango Campus that prepares students to become licensed registered nurses (RNs). An on-line baccalaureate degree program for RNs prepares its graduates to practice nursing at the professional level. Both the Associate of Science in Nursing (A.S.N.) and the Bachelor of Science in Nursing (B.S.N.) programs are accredited by the National League for Nursing Accrediting Commission (NLNAC).

Clarion's A.S.N. Program offers comprehensive and intensive nursing education that provides theory and clinical nursing courses and general education credits. The A.S.N. program prepares technical nurses to deliver client-centered care within structured settings such as hospitals, nursing homes, and outpatient facilities and to work effectively with other members of the health care team. The program provides a foundation for further study at the baccalaureate level.

Clarion's B.S.N. Program builds upon technical associate degree and diploma nursing curricula, offering credit for previous education. The B.S.N. program provides professional education in expanded settings that promotes critical and creative decision making. Professional nurses are prepared for leadership roles and professional advancement and for study at the master's degree level.

The undergraduate and graduate nursing programs reflect Clarion University's dedication to excellence. Nursing education continues to expand the practice of nursing to include nurse researchers, clinical specialists, nurse practitioners, nurse midwives, educators, and administrators.

Program Information

The Department of Nursing offers curricula leading to the degrees of Associate of Science in Nursing, Bachelor of Science in Nursing, and Master of Science in Nursing. For full information concerning the Master of Science in Nursing program, refer to the *Graduate Catalog*, which can be obtained from the Graduate Office, Carrier Administration Building, Clarion University, 840 Wood Street, Clarion, PA 16214-1232.

The Department of Nursing has an articulated program between the Associate of Science in Nursing and Bachelor of Science in Nursing degrees. After completing the first two years, the student will have earned an Associate of Science in Nursing degree and be eligible to take the National Council Licensure Examination (NCLEX) to become a registered nurse (RN). Upon completion of an additional four semesters, the student will earn a Bachelor of Science in Nursing degree.

Associate of Science in Nursing

Clarion's Associate of Science in Nursing (A.S.N.) Program offers both a comprehensive and intensive form of nursing education in a balanced curriculum of nursing and liberal arts. Because nursing courses are offered once a year and in a particular sequence, applicants are admitted only in the Fall Semester. Although there is a recommended curriculum plan, only the nursing courses must be taken in an identified order. The general education courses may be taken prior to entrance into the nursing program according to the needs of the individual and the established university prerequisites. In addition to the nursing and general education courses at the university, students engage in concurrent clinical practice at a variety of community health care agencies.

The A.S.N. Program is designed to prepare technical nurses to give client-centered care within structured settings and to work effectively with other members of the health team. The two-year Associate of Science in Nursing program provides the graduate with a foundation for further study at the baccalaureate level. Upon completion of the A.S.N. Program, the graduate will be eligible to take the state licensure examination.

Bachelor of Science in Nursing (on-line)

Clarion's on-line Bachelor of Science in Nursing (B.S.N.) Program builds upon the background and knowledge attained in an A.S.N. or diploma program and requires an additional four semesters of education. Applicants for the B.S.N. program may be admitted for either Spring or Fall semesters. Although the program is designed as a two-year curriculum for full-time students, individuals have the option of taking courses part-time after admission. Students who take courses on a part-time basis are expected to complete the program within five years.

The B.S.N. Program's primary goal is to provide educational experiences designed to promote scientific inquiry, creative thinking, critical judgment, and personal and professional development. The program affords students the opportunity to expand their nursing knowledge at a professional level. This program prepares graduates for professional advancement in the health care system and provides a basis for graduate study.

Department of Nursing Policies

Academic Requirements in Nursing

The academic requirements of the university apply to all programs in the School of Nursing, and the student must earn a grade of B in each of the following nursing courses: NURS 101, 102, 201, 202, 203, 131, 132; and a grade of C in 340, 342, 346, 361, 357, 376, 380, 445, 470, 480, and 482. A passing grade is required in all clinical courses: NURS 111, 112, 121, 211, and 212.

All nursing students are graded P (passing) or F (failing) in each clinical practicum. The associate degree student is evaluated by four critical elements that must be met in order to receive a passing grade in the clinical area. An unsatisfactory grade in any nursing course is regarded as a failure in the program, and the student is withdrawn from nursing.

Transfer

The transfer policy for A.S.N. students is consistent with that of Clarion University, however, **nursing credits are transferable only if received from an accredited associate degree or bachelor's degree program within the preceding two years and are determined to be equivalent to a Clarion nursing course.** If the individual has been out of a nursing program for more than two years, the NLN-Accelerated Credit Exam must be taken for transfer of credits. Diploma students who wish to transfer **must** take the challenge exams for transfer of nursing credits.

Intercollegiate Transfer

A student presently enrolled in a program at Clarion University may request admission into the Associate of Science in Nursing program by filling out a Change of Status Form and submitting it to the School of Nursing at Venango Campus.

1. A student must have the Change of Status Form completed and sent to the School of Nursing by **December 15** to be considered for admission to the program in the next Fall class. Students wishing to transfer into the ASN program from another college major must have a minimum QPA of 2.5.
2. NLN pre-admission testing and information sessions will be scheduled for prospective students.
3. Students requesting intercollegiate transfer must meet the general admission requirements of the nursing program.

Associate of Science in Nursing Program

Specialized Admission Requirements

Candidates for admission into the Associate of Science in Nursing Program must make application to the Admissions Office at Clarion University. All candidates are required to meet the following high school requirements:

- four units of English
- three units of social studies
- two units of science: one year of chemistry with a grade of C or better and one year of biology with a grade of C or better within five years of date of entry (calculated from the date of high school graduation).
- two units of mathematics (one must be **algebra** with a grade of C or better and one course may be algebra II, trigonometry, geometry, or calculus). These courses must have been taken within five years of date of entry (calculated from the date of high school graduation).

Candidates who **do not** meet all the high school requirements or have not taken the equivalent college level course(s) from a properly accredited institution and earned a grade of C or better must take the following courses.

1. To satisfy the science requirement, an individual must complete BIOL 111: Basic Biology **or** BIO 115: Introductory Biology **and** PHSC 111: Physical Science

Chemistry or CHEM 153: General Chemistry I **and** CHEM 163: General Chemistry I Lab. These science courses are pre-requisite courses for admission into the A.S.N. Program. (College credits for the sciences are acceptable only if they have been earned within 10 years of admission and received from a properly accredited institution.)

2. To satisfy the English requirement, an individual must take ENG 111: Writing II.
3. To satisfy the mathematics requirement, an individual will need to take MATH 050 Basic Algebra. The course is pre-requisite to both the nursing program and the math course required to meet the General Education requirements for an associate degree from Clarion University. (A placement test may be necessary for determining the necessary math course. Based on the results of this exam, the individual will either be exempt from MATH 050 or be required to take the course. (College credits for mathematics are acceptable only if they have been earned within 10 years of admission from a properly accredited institution.)

Admission Policies for Entrance

Applicants who satisfy all high school criteria will be considered for admission into the A.S.N. program. Admission to the program is very competitive. Admission procedures for the A.S.N. program include:

1. having been accepted by Clarion University. (See Clarion University Admissions requirements on page 17 in the catalog);
2. a QPA of 2.5 in high school and/or college;
3. completion of **pre-requisite courses** (biology, math, and chemistry) with a grade of C or better;
4. requesting admission into the A.S.N. program. (For new students, this requires a letter of application which **must** be received in the nursing office **no later than December 15**. For currently enrolled Clarion students, a change of status form **must** be completed and received in the nursing office **no later than December 15**;
5. having **official** transcripts from high school and **all** colleges or universities previously attended sent to the admissions office at Clarion University, 840 Wood Street, Clarion, PA 16214;
6. having taken or scheduled the National League for Nursing (NLN) Pre-Entrance Examination
7. submitting an essay of 250 words or less which addresses the applicant's interest in nursing (**must** be received in the nursing office no later than **December 15**).

Please be aware, the Department of Nursing's admissions committee will consider for Fall admission only those applicants who have met the above criteria. Note also the university designation as "pre-nursing" **does not** guarantee acceptance into the A.S.N. program.

Associate of Science in Nursing Degree Program Curriculum

Although the Associate of Science in Nursing is designed to be completed in two academic years, part-time study is available. The curriculum outline for the program is as follows.

<i>FIRST SEMESTER</i>	<i>Credits</i>
NURS 101: Nursing Process I: Fundamentals of Nursing	3
NURS 111: Nursing Process I: Fundamentals of Nursing Clinical Practice	2
NURS 121: Nursing Process I: Fundamentals of Nursing Practice Laboratory	1
NURS 131: Nursing Health Assessment.....	2
BIOL 258: Anatomy and Physiology I.....	3
PSY 211: General Psychology.....	3
 <i>SECOND SEMESTER</i>	
NURS 102: Nursing Process II	4
NURS 112: Nursing Process II Clinical Practice.....	4
NURS 132: Pharmacological Aspects of Nursing	3
BIOL 259: Anatomy and Physiology II.....	3
PSY 260: Developmental Psychology.....	3
 <i>THIRD SEMESTER</i>	
NURS 201: Nursing Process III.....	4
NURS 211: Nursing Process III Clinical Practice	4
MATH Any math course greater than MATH 110 ...	3
SOC 211: Principles of Sociology	3
ENG 111: Writing II.....	3
 <i>FOURTH SEMESTER</i>	
NURS 202: Nursing Process IV.....	4
NURS 212: Nursing Process IV Clinical Practice	4
NURS 203: Trends and Issues in Nursing	2
CMST 113: Public Speaking.....	3
TOTAL CREDITS 61	

Bachelor of Science in Nursing Program—Online

Admission Requirements

Admission into the Bachelor of Science in Nursing completion program is consistent with the Pennsylvania Articulation Model developed by the Pennsylvania Higher Education Nursing Schools Association Inc. (PHENSA). Nursing students can fulfill requirements of the lower division (freshman and sophomore years) by means of the following:

1. Transferring or validating knowledge equivalent to 30 nursing credits from an associate degree or diploma program (see 4 below).
2. Transferring the **required general education credits** from any accredited college or successfully completing the approved challenge exams. The accepted scores for credit will be determined by university policy.

Admission Policies for Entrance

1. Graduate from either an associate degree or diploma program in nursing.
2. Hold current licensure as an RN.
3. Show evidence of scholarship as demonstrated by 2.5 QPA (on a 4.0 system), or a comparable equivalent of a C-plus in previous educational program.
4. Successfully complete the pre-entry lower-division requirements as mentioned above.

Individuals may be admitted to the B.S.N. completion program on a conditional basis while in the process of completing the above requirements. Admission into the Bachelor of Science in Nursing program is competitive. An applicant meeting all of the program admission requirements is not guaranteed admission into the program.

Articulation Policy

Registered nurses who have graduated within three years from an NLNAC-accredited nursing program are eligible for direct articulation into Clarion’s B.S.N. completion program. Individuals who have graduated between three and 10 years prior to application must have 1,000 hours of nursing practice within the last three years for direct articulation. Special arrangements are made for individuals who have:

- (1) graduated from a nursing program not accredited by the NLNAC.
- (2) practiced nursing less than 1,000 hours within three years of application.
- (3) graduated from an NLNAC-accredited nursing program more than 10 years ago.

B.S. in Nursing Curriculum

Junior and Senior Years

<i>FIRST SEMESTER</i>	<i>Credits</i>
NURS 340: Nursing in Transition	3
NURS 361: Nurse as Educator	3
CIS 217: Applications of Microcomputers.....	3
Elective	3
Elective.....	3
 <i>SECOND SEMESTER</i>	
NURS 342: Thinking in Contemporary Nursing	3
NURS 346: Health Assessment.....	2
NURS 357: Leadership in Nursing	3
NURS 380: Statistics	3
BIOL 453: Pathophysiology: Endogenous Agents	4
 <i>THIRD SEMESTER</i>	
NURS 376: Frontiers in Health Care	3
NURS 445: Inquiry in Nursing	3
NURS 470: Promoting Healthy Communities.....	3
Nursing Elective.....	3
Arts and Humanities Elective.....	3
 <i>FOURTH SEMESTER</i>	
NURS 480: Role Seminar in Professional Nursing	3
NURS 482: Role Exploration in Professional Nursing.....	2
Nursing Elective.....	3
Arts and Humanities Elective.....	3
Elective	3
Elective	1
TOTAL CREDITS FOR GRADUATION 120	

Nursing Courses

Nursing Associate Degree Courses

- NURS 101:** *NURSING PROCESS I: FUNDAMENTALS OF NURSING PRACTICE* **3 s.h.**
 Introduces students to the concepts of individual, health, and environment. Emphasizes the nursing process as the basis for client-centered care. Provides the theoretical foundation for the development of cognitive, psychomotor, and communication skills necessary to care for clients and promote healthy responses. Examines the needs of culturally diverse individuals within the context of their functional health patterns. Three lecture hours per week. Prerequisites or co-requisites: BIOL 258 and PSY 211. Co-requisites: NURS 111, 121, and 131. Fall, annually.
- NURS 102:** *NURSING PROCESS II* **4 s.h.**
 Focuses on the application of the nursing process in acute care settings to individuals across the life span. Explores the nursing process as it relates to the care of clients in crisis from rape/sexual assault/domestic violence and clients with ineffective response to crisis (chemical dependency/suicide). Considers the nursing care of clients with musculoskeletal, gastrointestinal, and gynecologic dysfunction. The last portion of the class focuses on human reproduction in health and illness. Four class hours weekly. Prerequisites: Minimum grade of C in BIOL 258 and B in NURS 101 and 131 and "Pass" in NURS 111 and 121. Co-requisites: NURS 112, BIOL 259, and PSY 260. NURS 132 can be taken as a prerequisite or a co-requisite. Spring, annually.
- NURS 103:** *NURSING PROCESS I: FUNDAMENTALS OF NURSING CLINICAL PRACTICE* **2 s.h.**
 Clinical practice experience provides opportunities for the student to implement the objectives identified in NURS 101 and 131. Students care for elderly and/or chronically ill clients who require basic nursing interventions in long-term care settings. Six clinical hours weekly. Co-requisites: NURS 101, 121, and 131. Fall, annually.
- NURS 112:** *NURSING PROCESS II: CLINICAL PRACTICE* **4 s.h.**
 Clinical practice experience provides opportunities for the student to implement the objectives identified in NURS 102 and 132. Students care for clients in crisis and clients across the life span having musculoskeletal, gastrointestinal, and gynecologic dysfunction. Provides clinical experience in the obstetrical setting with mothers and newborns. Offers increased opportunities for medication administration. Twelve clinical hours weekly. Co-requisites: NURS 102 and 132. Prerequisites: Minimum grade of C in BIOL 258 and B in NURS 101 and 131 and a "Pass" in NURS 111 and 121. Spring, annually.
- NURS 121:** *NURSING PROCESS I: FUNDAMENTALS OF NURSING PRACTICE LAB* **1 s.h.**
 Provides students with the opportunity to learn basic nursing skills required to deliver nursing interventions to clients experiencing alterations in their health status. Enables nursing students to acquire beginning skills and confidence through practice in the college learning laboratory. Three laboratory hours weekly. Pass/Fail. Co-requisites: NURS 101 and 111. Prerequisite or co-requisite: NURS 131. Fall, annually.
- NURS 131:** *NURSING HEALTH ASSESSMENT* **2 s.h.**
 Teaches students beginning skills in assessing the health of clients through health histories and physical examinations. Provides students with opportunities to practice assessment skills. Required of all A.S.N. students. Open to any student with permission of the instructor. Fall, annually.
- NURS 132:** *PHARMACOLOGICAL ASPECTS OF NURSING* **3 s.h.**
 Presents principles of pharmacology with practical application to the care of clients. Emphasizes major drug classifications, actions/interactions, side effects, and related nursing interventions. Introduces learning strategies to develop student abilities in making critical assessments and decisions about pharmacological interventions. Required of all A.S.N. students. Open to any student with permission of the instructor. Spring, annually.
- NURS 201:** *NURSING PROCESS III* **4 s.h.**
 Focuses on the application of the nursing process to individuals across the life span in acute care and community settings. Utilizes the nursing process in determining the care of clients having cancer and the care of clients with respiratory, cardiovascular, sensory, and urinary and renal dysfunctions. Four class hours weekly. Co-requisite: NURS 211. Prerequisites: PSY 260, minimum grade of C in BIOL 259 and B in NURS 102 and 132, and "Pass" in NURS 112. Fall, annually.
- NURS 202:** *NURSING PROCESS IV* **4 s.h.**
 Focuses on the application of the nursing process in a variety of settings to individuals across the life span. Explores the nursing process as it relates to the care of clients having immune, neurologic, endocrine, and psychiatric-mental health dysfunction. Emphasizes the nursing management of selected clients requiring critical care. Co-requisite: NURS 212. Prerequisites: Minimum grade of B in NURS 201 and "Pass" in NURS 211. Spring, annually.
- NURS 203:** *TRENDS AND ISSUES IN NURSING* **2 s.h.**
 Introduces students to relevant aspects of change in the nursing profession, ranging from historical development to current issues and trends. Provides opportunities for students to participate in in-depth studies of selected topics of interest. Emphasizes role transition from student to graduate nurse. Prerequisites: Minimum grade of B in NURS 101, 102, and 201. Spring, annually.
- NURS 211:** *NURSING PROCESS III: CLINICAL PRACTICE* **4 s.h.**
 Clinical practice experience provides opportunities for students to implement objectives identified in NURS 201. Students care for clients across the life span having cancer and clients having respiratory, cardiovascular, sensory, urinary, and renal dysfunctions. Provides opportunities for administration of intravenous medications and development of skills in comprehensive client assessment. Twelve clinical hours weekly. Co-requisite: NURS 201. Prerequisites: Minimum grade of C in BIOL 259 and B in NURS 102 and 132 and "Pass" in NURS 112. Fall, annually.
- NURS 212:** *NURSING PROCESS IV: CLINICAL PRACTICE* **4 s.h.**
 Clinical practice experience provides opportunities for students to implement objectives identified in NURS 202 and 203. Students care for acutely ill clients across the life span having immune, neurologic, endocrine, and psychiatric-mental health dysfunctions. Provides opportunities for delivery of care to increasing numbers of clients, and guided practice in refining interpersonal and decision-making skills required of the graduate nurse. Twelve clinical hours weekly. Co-requisites: NURS 202 and 203. Prerequisites: Minimum grade of B in NURS 201, and "Pass" in NURS 211. Spring, annually.

NURS 299: SPECIAL TOPICS IN NURSING 1-3 s.h.

This course deals with topics of special interest for all nursing students. It will focus on identified nursing subjects needed to keep students abreast of the changing trends in the profession and provide them with a mechanism for updating their nursing knowledge and clinical competencies. This course may be offered summers and weekends during the academic year, according to demand, and will be open to all students.

Nursing Bachelor's Degree Courses**NURS 320: DEATH AND GRIEF 3 s.h.**

Explores the dying process from various conceptual and theoretical frameworks. Focuses on historical, ethical, socio-cultural and interpersonal perspectives on death. Students address their own mortality and develop a personal philosophy of death and grief. Opportunities are provided for students to interact with professional experts as well as individuals experiencing grief/death issues. Spring, annually, and as needed. Open to all students.

NURS 335: ALTERNATIVE THERAPIES 3 s.h.

Explores various approaches to health and healing that lie outside the realm of conventional Western medicine. Focuses on how these therapies are presented on the World Wide Web and how the registered nurse can evaluate their effectiveness. Students will research selected topics and critically appraise the quality of information found on the Internet. Open to all students. Fall, annually.

NURS 340: NURSING IN TRANSITION 3 s.h.

Provides a theoretical foundation for the transition from technical to professional nursing practice. Addresses the concepts of nursing, health, individual, and environment. Explores nursing as an evolving profession with emphasis on the historical perspectives, environmental context, and future trends that could impact health care. Views individuals from a holistic perspective, and explores the spectrum of health. Introduces nursing theory and nursing inquiry as the basis for the practice of professional nursing. Open to students who are **licensed RNs** and others with permission of instructor. Fall, annually, and as needed.

NURS 342: THINKING IN CONTEMPORARY NURSING 3 s.h.

Focuses on thinking as a skill and its practical application in the health care arena. Emphasizes critical thinking, creative thinking, reasoning, decision making, problem solving, and metacognition as they relate to the many facets of professional nursing practice. Provides students opportunities to transfer skills to problems of a professional and personal nature. Open to students who are **licensed RNs** and others with permission of instructor. Spring, annually, and as needed.

NURS 346: HEALTH ASSESSMENT 2 s.h.

Enables the registered nurse to enhance skills in assessing the health status of individuals. Provides an opportunity to obtain a comprehensive health history and perform a screening physical assessment. Emphasizes recognizing deviations from normal and integrating physiological, psychosocial, developmental, spiritual, and transcultural dimensions in order to formulate diagnostic hypotheses. Open to students who are **licensed RNs**. Spring, annually, and as needed.

NURS 347: CREATING A WELLNESS LIFESTYLE 2-3 s.h.

Introduces the student to the concepts of wellness and health promotion from a holistic perspective. Within this framework, students explore how to gain more control over their lives through effective stress management, management of time and change, and adequate self and social support. Assists students in increasing self-responsibility and negotiating the health care delivery system. Discusses health measures such as diet, exercise, and sleep as they relate to a wellness lifestyle. Explores the balance of caring for others and caring for self. Each student is guided in formulating an individualized wellness plan. Open to all students. Fall, annually, and as needed.

NURS 357: LEADERSHIP NURSING 3 s.h.

Provides a theoretical foundation for the practice of independent and interdependent nursing. Introduces the principles of leadership and management, and emphasizes their application to professional nursing. Focus includes concepts of motivation, change, group process, empowerment, and nursing care delivery systems. Open to **licensed RNs** and others with permission of instructor. Spring, annually, and as needed.

NURS 361: NURSE AS EDUCATOR 3 s.h.

Requires students to develop and provide health education to individuals, families, and communities. Focuses on the nursing process, the teaching/learning process, and health care informatics. Provides opportunities for the student to implement the teaching/learning process in the delivery of health education programs. Open to students who are **licensed RNs**. Fall, annually, and as needed.

NURS 365: HEALTH PROMOTION FOR THE ELDERLY 3 s.h.

Provides students with information and strategies related to the promotion and maintenance of health in a holistic manner for the elderly population. Promotes inquiry and stimulates the critical-thinking processes of the student by emphasizing health and wellness concepts. Open to all students. Offered Fall 'even' years.

NURS 368: HUMAN CARING 3 s.h.

Provides an opportunity for in-depth exploration of the concept caring. Appropriate to students entering any human service major. Derives content primarily from scholarly works in the discipline of nursing. Supplements Jean Watson's theory of human caring with guided experiences designed to facilitate personal discovery of one's caring capacities and opportunities to more fully integrate them into the work of one's discipline. Open to all students. Spring, annually, as needed.

NURS 376: FRONTIERS IN NURSING 3 s.h.

Provides an opportunity for students to explore the U.S. health care system, its complexities, problems, alternatives for managing problems, and its impact on individuals and populations. Social, technological, political, and economic contexts provide a framework to explore the collaborative efforts of professionals to transform health care delivery both nationally and internationally. Students address current, complex national and international health issues. Open to all **licensed RNs** and others with permission of instructor. Fall, annually, and as needed.



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- NURS 380:** **APPLIED STATISTICS FOR HEALTH CARE PROFESSIONALS** **3 s.h.**
 Introduces students in health care professions to knowledge and understanding of statistics as applied to health care practice and research. Introduces the basic rules and principles of statistics through investigation of quantitative and qualitative problems in health care. Prerequisite: C or better in MATH 111 or higher. Open to all students. Spring, annually.
- NURS 445:** **INQUIRY IN NURSING** **3 s.h.**
 Emphasizes the role of inquiry as it applies to nursing. Includes principles of research and scientific method of inquiry and application of critical and decision making skills. Focuses on the ways research influences nursing and nursing care. Critiques current research for applicability to professional nursing practice in a variety of settings. Prerequisites: NURS 380 and a minimum grade of C in NURS 361, 340 and 342. Open to **licensed RNs** only. Fall, annually, and as needed.
- NURS 470:** **PROMOTING HEALTHY COMMUNITIES** **3 s.h.**
 Introduces essential knowledge and important nursing roles for health promotion and illness prevention at the family and community level. Students will explore principles of epidemiology, demography, and relevant nursing and health-related theories and models as they apply to the health of individuals, families, and aggregates. Prerequisites: NURS 340, 342, 346, and 361. Open to **licensed RNs** only. Fall, annually, and as needed.
- NURS 480:** **ROLE SEMINAR IN PROFESSIONAL NURSING** **3 s.h.**
 This capstone course provides a culminating experience in the implementation of the professional nursing role. Emphasizes present and evolving nursing contributions in a reformed health care system. Students are guided in the development of a self-directed practicum in a selected role. Must be taken as a co-requisite to NURS 482. Prerequisites: Grade of C in NURS 340, 342, 346, 357, 361, 376, 380, 445, 470. Open to **licensed RNs** only. Spring, annually, and as needed. Nursing 357 can either be a prerequisite or a corequisite with nursing 480.
- NURS 482:** **ROLE EXPLORATION IN PROFESSIONAL NURSING** **2 s.h.**
 This capstone course provides opportunities for the student to explore a professional role through research, interviews, and other scholarly activities. The role under investigation can be one of possible graduate study or career advancement. The student may select from a variety of roles, such as CRNP, CRNA, clinical specialist, nurse educator, nurse administrator, nurse researcher, etc. **Open to RN students only.** This course must be taken as a co-requisite to NURS 480. Prerequisites: minimum grade of C in NURS 340, 342, 346, 357, 361, 376, 380, 445, and 470. Spring, annually. Nursing 357 can either be a prerequisite or a corequisite with nursing 480.
- NURS 499:** **SPECIAL TOPICS IN NURSING** **1-6 s.h. variable**
 Deals with topics of special interest to professional nurses. Focuses on identified nursing subjects pertinent to the practice of professional nursing. May be offered during the academic year as well as summers and weekends, according to demand.

Department of Allied Health

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Accreditation

Committee on Accreditation for Respiratory Care (CoARC)

Accreditation of Medical Imaging Clinical Affiliates

Joint Review Committee on Education in Radiologic Technology (JRCERT) and the Joint Review Committee on Accreditation of Diagnostic Medical Sonography (JRC-DMS)

Degree Listing

Allied Health (A.S.)

Medical Imaging Sciences (B.S.)

Radiologic Technology concentration

Respiratory Care (A.S.)

Degree Completion Options

Degree completion options are available only to credentialed medical imaging professionals who have completed an accredited program in one of the medical imaging fields listed below and who desire to earn a baccalaureate degree in medical imaging sciences.

Diagnostic Medical Sonography

Nuclear Medicine Technology

Radiation Therapy

Medical Dosimetry

Program Information

The field of allied health encompasses a vast array of specially-trained healthcare professionals including medical imaging technologists and respiratory therapists. Allied health professionals perform vital medical services and work in collaboration with physicians, nurses, and other health care providers to deliver integrated and comprehensive quality health care in hospitals, clinics, and private practice offices.

Rapid advances in technology as well as a large aging population have resulted in an increased demand for qualified allied health professionals. According to the United States Department of Labor Bureau of Labor Statistics, the career outlook for many allied health professions is favorable to very good, and the need for many of these professions is expected to increase faster than average through the year 2018.

Associate of Science, Allied Health

Clarion University's Associate of Science degree with a major in Allied Health enables allied health professionals to get started on the road to career advancement through the attainment of academic degrees. Clarion University recognizes the value of an allied health professional's clinical education and acquired professional expertise and therefore awards credit for completion of a formal, accredited educational program in an allied health field.*

Potential Program Candidates

Health professionals who may qualify for the AS, Allied Health include the following: diploma nurses, surgical technologists, paramedics, ophthalmic medical technicians, dental professionals, pharmacy technicians, medical imaging professionals, medical office professionals, medical assistants, physical therapy technicians, and others.

A.S., Allied Health Curriculum

The AS, Allied Health requires completion of a total of 60 credits—30 credits of science and general education course work that must be earned from Clarion University and 30 credits that are awarded for completion of a formal, accredited allied health educational diploma program.

Sample Curriculum

I. Liberal Education Skills

A. English Composition 3 cr

B. Math Competency..... 3 cr

C. Liberal Education Elective 3 cr

II. Liberal Knowledge 15 cr

Choose courses from at least 2 of the following 3 categories.

At least 3 credits must come from Category A for a total of 15 credits.

A. Physical and Biological Sciences

B. Social and Behavioral Sciences

C. Arts and Humanities

III. General Education Electives 6 cr

IV. Approved Allied Health Professional Training.. 30 cr

Evaluation of Clinical Coursework

*Credits for completion of clinical course work will be considered on a case-by-case basis by Clarion's Department of Allied Health and will be based on the following criteria:

- The educational program must be for an allied health profession that is recognized by the American Medical Association as a health care profession.
- The allied health educational program from which the applicant has graduated must meet one or both of the following criteria:
 1. The educational program must hold accreditation in good standing with a formal national programmatic accrediting agency widely acceptable to the specific allied health profession and formally recognized by the U.S. Department of Education or the Council for Higher Education Accreditation.
 2. The educational program must be offered in a post-secondary institution of higher learning that has accreditation in good standing with a regional accreditor formally recognized by the U.S. Department of Education such as the Middle States Association of Colleges and Schools.

*The allied health educational program from which the applicant has graduated must have entailed a minimum of 450 contact hours.

Degree Conferral

Upon successful completion of the AS, Allied Health, graduates will have earned an Associate of Science degree with a major in Allied Health from Clarion University with the diploma or certificate earned from the allied health educational program attended.



Bachelor of Science in Medical Imaging Sciences Program

Radiologic Technology concentration

The medical imaging sciences program has an academic preparation of two years (60 semester hours including general education) at Clarion University and continues with a 24-month, 60-semester hours course of clinical study in an affiliated hospital-based school of radiologic technology. All affiliated hospital-based schools of radiologic technology are accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Admission to the general education portion of the program is offered to individuals meeting university admission criteria. In the sophomore year, students apply for admission to an affiliated hospital program. Hospital-based clinical sites have limited space and competitive admission standards. Admission to the medical imaging sciences program at Clarion University does not guarantee admission to an affiliated hospital-based program. At the completion of the second year of study at Clarion University, students who have been accepted to a clinical site enter the radiologic technology program at the affiliated hospital to which they have been accepted. Upon successful completion of this clinical course of study, the student is awarded a Bachelor of Science degree and is eligible to sit for the national certification examination in radiography sponsored by the American Registry of Radiologic Technologists. Successful completion of this examination entitles the graduate technologist to use the credentials Registered Technologist (Radiography) R.T. (R) and practice as an entry-level R.T. in most states in the United States.

Degree Completion Option

Registered radiologic technologists who wish to earn the B.S. degree with a major in medical imaging and a concentration in radiologic technology may complete most general education course work online.

Other Medical Imaging Sciences Concentrations: Diagnostic Medical Sonography (Ultrasound), Nuclear Medicine, Radiation Therapy, and Medical Dosimetry

Clarion's medical imaging program serves as an online degree completion program to individuals who are already credentialed professionals in diagnostic medical sonography, nuclear medicine technology, radiation therapy, or medical dosimetry and who wish to earn a Bachelor of Science degree.

Credentialed professionals opting for the concentration in diagnostic medical sonography, nuclear medicine technology, radiation therapy, or medical dosimetry will be awarded between 30–60 clinical credits for successful completion of a formal educational program that is accredited by the appropriate accrediting agency as follows:

- Joint Review Committee on Education in Diagnostic Medical Sonography (JRC DMS)
- Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRC NMT)
- Joint Review Committee on Education in Radiologic Technology (JRCERT)

Clinical credits will be awarded on the length of clinical education and is determined solely at the discretion of the chair of the Department of the Allied Health and the director of the school of Nursing and Allied Health.

Most general education for the medical imaging sciences degree completion concentrations may be completed online at Clarion University.

Admission Policy

Students interested in the medical imaging sciences program will be admitted to the university using the standard criteria for admission. Retention in the program requires the student to maintain a cumulative 2.0 QPA and attain a grade of C or higher in all required professional courses and all required science and major courses.

Students who apply for admission to an affiliated hospital’s two-year radiologic technology program typically do so in the second semester of their sophomore year. Application is made to a hospital-based radiologic technology program and acceptance is at the discretion of the admission committee of the hospital program. Students are accepted to hospital programs based on their university records, application materials, interviews with hospital program admissions committees, and other admissions criteria established by the clinical site. Only students who are given formal recommendation by the Department of Allied Health may apply to clinical sites.

B.S. in Medical Imaging Sciences Curriculum

Although the medical imaging sciences program is designed to be completed in two academic years at Clarion University and two years at an affiliated hospital, part-time study is optional while completing general education course work. The curriculum outline for the general education portion of the program is as follows:

Curriculum Plan

<i>SEMESTER I</i>		Credits
CHEM 153:	Chemistry I	3
CHEM 163:	Chemistry I Lab	1
ENG 111:	English Composition	3
	¹ Arts and humanities elective.....	3
	Social and behavioral sciences elective	3
HPE	Activity course	1
	TOTAL.....	14
<i>SEMESTER II</i>		Credits
CHEM 154:	Chemistry II	3
CHEM 164:	Chemistry II Lab	1
	² Liberal education elective.....	3
	³ Social and behavioral sciences elective.....	3
	Free elective.....	3
HPE 111:	Health Education.....	2
	TOTAL.....	15
<i>SEMESTER III</i>		Credits
BIOL 258:	Anatomy and Physiology	3
PHSC 112:	Basic Phy. Sci.: Physics and Astronomy.....	3
	Arts and humanities elective.....	3
MATH 221:	Mathematics competency.....	3
	General education elective.....	3
	TOTAL.....	15

<i>SEMESTER IV</i>		Credits
BIOL 259:	Anatomy and Physiology II	3
	⁴ Liberal education elective	3
	Social and behavioral sciences elective	3
	General education elective.....	3
	Arts and humanities elective.....	3
	Free elective	1
	TOTAL.....	16
	Total Credits	60

Note recommended courses:

- ¹ PSY 211: General Psychology
- ² CMST 113: Public Speaking
- ³ SOC 211: Principles of Sociology
- ⁴ CIS 217: Application of Microcomputers

Associate of Science, Respiratory Care for Advanced Level Practitioners

Clarion University’s respiratory care program for advanced level practitioners is offered at Venango Campus in Oil City.

The 24-month respiratory care program has an academic preparation of one academic year (two semesters) and continues with a 14-month program of clinical study at Clarion University and at accredited affiliated clinical sites.

Following completion of 79 credits of course work at Clarion University and at affiliated clinical practicum sites, the student is awarded an Associate of Science degree with a major in Respiratory Care. Program graduates are eligible to sit for the credentialing examinations administered by the National Board for Respiratory Care (NBRC). Graduates who successfully pass the NBRC Written Registry Examination for Advanced Level Respiratory Therapists and the Clinical Simulation Examination will earn the credentials Registered Respiratory Therapist (RRT) and may work in a variety of health care settings as advanced-level respiratory therapists after obtaining state licensure.

Clarion University’s respiratory care program is accredited by the Committee on Accreditation for Respiratory Care (CoARC).

Clinical Education

During the 14-month clinical phase of the respiratory care program, students will attend classes and clinical practicum five full days per week with some days spent in formal respiratory care classes taught at Clarion University and other days spent at assigned clinical sites. Students will also be required to periodically attend specialty respiratory care rotations at local and regional health care organizations. *Significant travel is required of respiratory care students. Reliable transportation is therefore essential and is at the expense of the student.* Additionally, some weekend and evening rotations may be required.

Several local and regional health care organizations serve as clinical sites for the respiratory care program. Although student preference for a particular clinical site will be considered, students are not guaranteed the clinical site(s) of their choice.



Admission Policy

Admission to the respiratory care program is a two-step process that begins with acceptance to Clarion University. Applicants are required to meet the standard admission criteria for Clarion University. After acceptance to Clarion University, students must then be accepted to the respiratory care program and must also meet additional admission criteria. Admission to the respiratory care program is competitive and is not guaranteed.

Possible prerequisites:

- Students who do not place into the appropriate math level (MATH 112 or higher) must take MATH 050 or MATH 110 before acceptance to the program.
- One year of high school or college biology with a minimum grade of C or better.

Note: Biology must have been taken within five years of entry to Clarion University. If biology has not been taken within this time frame, Basic Biology (BIOL 111) will be required before the start of the program in late August.

Additional admission criteria:

The following criteria must be met before a respiratory care student will be permitted to attend respiratory courses and clinical practicum. The student will be notified of deadlines for providing documentation of the criteria. Failure to meet all of the criteria by the established deadline will prohibit the respiratory care student from continuing in the respiratory care program.

- Satisfactory score on PSB Health Occupations Aptitude Examination (fee applies)
- Four documented hours of respiratory care career shadowing with a respiratory therapist
- Two-page formal essay (specific topic will be provided)
- Two letters of recommendation from current employers or teachers
- Satisfactory pre-clinical physical examination and illegal drug screening (at student's expense)
- Child abuse history clearance, FBI fingerprinting and criminal background checks (at student's expense)
- Documentation of individual malpractice insurance (at student's expense)*
- Documentation of health insurance (at student's expense)

* Students will purchase their own individual malpractice insurance policies in the amount of one million dollars (\$1,000,000.00) for each claim and three million dollars (\$3,000,000.00) in the aggregate. Cost of this 2-year policy is currently under \$100.

Throughout the 24-month respiratory care program, students will be assigned to specialty clinical rotations at other clinical sites in the region. Students are required to have reliable transportation to each clinical site.

Curriculum Plan for Full-Time Study

Although the Associate of Science in Respiratory Care degree program is designed to be completed in 24 consecutive months (two semesters at Clarion University followed by 14 months of clinical education that includes two summer sessions), the first two semesters at Clarion University may



be completed on a part-time basis. Clinical education must be completed on a full-time basis.

Curriculum Plan

FIRST SEMESTER (FALL I)

	Credits
BIOL 258: Human Anatomy and Physiology I.....	3
ENG 111: Writing II.....	3
PHSC 111: Physical Science Chemistry	3
MATH 112: Excursions in Math.....	3
PSY 211: General Psychology.....	3
SEMSTER TOTAL.....	15

SECOND SEMESTER (SPRING I)

	Credits
BIOL 259: Human Anatomy and Physiology II	3
RESP 101: Introduction to Respiratory Care	3
RESP 120: Introduction to Lab/Clinics in RC.....	1
BIOL 260: Microbiology	3
CIS 217: Application of Microcomputers	3
Free elective.....	3
SEMESTER TOTAL.....	16

THIRD SEMESTER (SUMMER I)

	Credits
RESP 102: Intermediate Respiratory Care.....	3
RESP 121: Clinical Application of Respiratory Care I.....	2
RESP 201: Cardiopulmonary A&P.....	3
RESP 202: Cardiopulmonary Pathophysiology.....	2
RESP 203: Cardiopulmonary Pharmacology.....	2
SEMESTER TOTAL.....	12

FOURTH SEMESTER (FALL II)

	Credits
RESP 204: Advanced Respiratory Care	3
RESP 205: Mechanical Ventilation and Critical Care I.....	3
RESP 206: Selected Topics in Respiratory Care.....	3
RESP 220: Clinical Application of Respiratory Care II.....	3
SEMESTER TOTAL.....	12

FIFTH SEMESTER (SPRING II)

	Credits
RESP 207: Mechanical Ventilation and Critical Care II	4
RESP 208: Neonatal and Pediatric Respiratory Care	3
RESP 221: Clinical Application of Respiratory Care III.....	5
SEMESTER TOTAL.....	12

<i>SIXTH SEMESTER (SUMMER II)</i>	Credits
RESP 209: Adv. Cardiac Life Support and Case Studies ..2	
RESP 210: Advanced Clinical Concepts	3
RESP 211: Case Studies—Clinical Simulations.....	2
RESP 222: Clinical Application of Respiratory Care IV ...5	
SEMESTER TOTAL.....	12
Total Credits	79

A minimum grade of C must be earned in MATH 112, BIOL 258, BIOL 259, BIOL 260, PHSC 111, and all respiratory care (RESP) courses.

Respiratory Care Courses

- RESP 101: INTRODUCTION TO RESPIRATORY CARE** **3 s.h.**
Students learn applicable medical terminology and the principles of infection control. The course introduces respiratory care modalities such as medical gas therapy, humidity therapy, aerosol therapy, and aerosolized bronchodilator therapy. Basic care is related to patients with chronic obstructive pulmonary disease (COPD) and asthma. Co-requisite: RESP 120.
- RESP 102: INTERMEDIATE RESPIRATORY CARE** **3 s.h.**
Introduces basic principles of bronchial hygiene therapy and lung hyper-expansion therapy such as incentive spirometry, IPPB, and PEP therapy. Additionally, the course introduces other techniques in patient assessment, including assessing breath sounds, ECG, and chest radiography. Management of the airway is presented, including coughing techniques, suctioning of the upper airway, and use of artificial airways. Arterial blood gas interpretation is included. Prerequisites: RESP 101 and 120.
- RESP 120: INTRODUCTION TO LAB/CLINICS IN RESPIRATORY CARE** **1 s.h.**
Supervised clinical practice takes place in a controlled lab/clinic environment. Students participate in learning and practicing the general respiratory care activities typically performed in the non-critical care/general floor areas of the hospital. Co-requisite: RESP 101.
- RESP 121: CLINICAL APPLICATION OF RESPIRATORY CARE I** **2 s.h.**
Students learn to perform chart reviews, patient interviews, basic patient assessment, and patient treatment with modes of care including oxygen therapy, humidity, and aerosol therapies with bronchodilators, bronchial hygiene, and hyperinflation therapy. An introduction to arterial blood gas sampling and analysis is provided. Prerequisites: RESP 101 and 120; Co-requisite: RESP 102.
- RESP 201: CARDIOPULMONARY ANATOMY AND PHYSIOLOGY** **3 s.h.**
Students learn applied anatomy, physiology, and mechanics of the cardiopulmonary system. The course demonstrates the application of physiological principles in the practice of respiratory care and includes such concepts as acid-base balance, oxygen transport and utilization, electrolyte interpretation, and an introduction to techniques in measuring basic hemodynamic and pulmonary function. Prerequisite: BIOL 259, RESP 120.
- RESP 202: CARDIOPULMONARY PATHOPHYSIOLOGY** **2 s.h.**
Students learn to examine pulmonary pathologic disorders for each age group (neonate, child, adult, elderly adult). Each disorder reviewed includes a discussion of related medical history, pathophysiology of the disorder, physical findings, lab data, arterial blood gases, pulmonary function studies, chest radiography results, and cardiovascular findings. Recommended therapies and prognosis are included. Prerequisites: RESP 101 and 120; Co-requisite: RESP 201.
- RESP 203: CARDIOPULMONARY PHARMACOLOGY** **2 s.h.**
Students learn to examine common pharmacologic agents used in treatment of the cardiopulmonary system. The course includes respiratory drugs, such as mucolytics, bronchodilators, anti-inflammatory agents, inhaled anti-microbials, and surfactant acting agents. It also provides an introduction to general antibiotic therapy and basic cardiovascular medications. Prerequisites: RESP 101, 102, and 120; Co-requisite: RESP 201.
- RESP 204: ADVANCED RESPIRATORY CARE** **3 s.h.**
Includes ethical and legal implications of practice and teaches advanced clinical assessment skills, including interpretation of chest roentgenograms and laboratory data. It will also include study of pulmonary function testing techniques and capnography. Advanced airway management techniques and use of artificial airways will also be discussed. Prerequisites: RESP 101, 201, and 202.
- RESP 205: MECHANICAL VENTILATION AND CRITICAL CARE I** **3 s.h.**
Students learn to initiate mechanical ventilation of the critically ill patient, including indications for noninvasive mechanical ventilation and invasive mechanical ventilation. Initial ventilator settings based on patient size (neonatal, pediatric, and adult) and diagnosis are reviewed. The course provides an introduction to mechanical ventilators and their function. Prerequisites: RESP 102, 201, 202, and 203; Co-requisites: RESP 204 and 206.
- RESP 206: SELECTED TOPICS IN RESPIRATORY CARE** **3 s.h.**
Introduces students to the care of patients with chronic pulmonary disorders such as oxygen-dependent and ventilator-dependent individuals. The delivery of respiratory care in long-term acute care and non-acute care facilities is included. Students examine programs of cardiopulmonary rehabilitation. Sleep study facilities, sleep apnea testing, and care of the patient with a sleep disorder are reviewed. Other topics include patient education, smoking cessation, geriatric respiratory care, the interactions of nutrition and respiration, and the role of the respiratory therapist in disaster medicine. Prerequisites: RESP 102, 202, and 203.
- RESP 207: MECHANICAL VENTILATION AND CRITICAL CARE II** **4 s.h.**
Students continue to learn management of critically ill patients who require ventilation support, including how to make appropriate ventilation adjustments based on assessment of patient-ventilator interaction and pathophysiology. Students learn how to recognize complications of mechanical ventilation through ventilator waveform analysis and patient assessment. Students learn to identify patient readiness for ventilator discontinuation. Alternative techniques such as high frequency ventilation, nitric oxide therapy, and unilateral lung ventilation are presented. Prerequisite: RESP 205.

- RESP 208:** *NEONATAL AND PEDIATRIC RESPIRATORY CARE* **3 s.h.**
Emphasizes care of the premature infant, newborn, and child. Basic forms of therapy for these age groups are reviewed. Includes both noninvasive and invasive forms of support and ventilator management for neonatal and pediatric patients. Students learn advanced cardiac life support techniques for neonatal and pediatric patients and examine appropriate responses to emergency situations of cardiopulmonary collapse for newborns and pediatric groups. Additional therapeutic techniques such as nitric oxide, extracorporeal membrane oxygenation, and high frequency oscillation of the infant are presented. Prerequisites: RESP 204 and 205.
- RESP 209:** *ADVANCED CARDIAC LIFE SUPPORT PREPARATION AND CASE STUDIES* **2 s.h.**
Students learn advanced cardiac life support (ACLS) techniques for adult patients and examine appropriate responses to emergency situations of cardiopulmonary collapse. Students also examine various patient cases related to emergency life support. Prerequisites: RESP 204, 205, 207, and 208.
- RESP 210:** *ADVANCED CLINICAL CONCEPTS* **3 s.h.**
Summative course provides an overview of all respiratory care procedures presented in the program. Students are given the opportunity to evaluate their understanding of key concepts and review areas needing additional study. The course provides an opportunity to focus on a particular area of interest and includes a review for the NBRC entry level examination. Prerequisites: RESP 204, 205, 206, and 207; Co-requisites: RESP 209 and 211.
- RESP 211:** *CASE STUDIES—CLINICAL SIMULATIONS* **2 s.h.**
The course reviews patient cases using a case study or clinical simulation approach. Students review how to gather appropriate data, critically analyze data and recommend patient treatment modalities, and evaluate patient response to treatment and make appropriate adjustments. Students participate in an advanced-level written registry examination for self-assessment and an advanced level clinical simulation examination for self assessment. Prerequisites: RESP 204, 205, 206, and 207; Co-requisites: RESP 209 and 210.
- RESP 220:** *CLINICAL APPLICATION OF RESPIRATORY CARE II* **3 s.h.**
During the clinical course, students practice respiratory care techniques in the critical care environment, including techniques previously demonstrated and new techniques in ventilator management. Time management skills are introduced. Prerequisites: RESP 102, 121, 202, and 203; Co-requisites: RESP 204 and 205.
- RESP 221:** *CLINICAL APPLICATION OF RESPIRATORY CARE III* **5 s.h.**
Students gain additional practice in the critical care unit. Clinical rotations are provided to pulmonary function laboratories, bronchoscopy suites, and additional facilities of the hospital in which respiratory therapists are active. Prerequisite: RESP 220; Co-requisite: RESP 207.
- RESP 222:** *CLINICAL APPLICATION OF RESPIRATORY CARE IV* **5 s.h.**
The clinical rotation provides students with experience in neonatal, pediatric, and adult care units. Additional rotations to home care agencies, sleep study centers, cardiac/pulmonary rehabilitation programs, and extended care facilities. Emphasis is placed on students gaining better patient- and time-management skills. Prerequisites: RESP 206, 207, 208, 221; Co-requisites: RESP 209 and 211.
- RESP 299:** *RESPIRATORY CARE FIELD EXPERIENCE* **3 s.h.**
Optional course provides a culminating field experience for respiratory care students who are in the final 12-week session of the 24-month program. The field experience option further prepares students who are near program completion to function as competent entry-level practitioners. Respiratory care students who elect a field experience must have successfully completed all prior respiratory care coursework, must be concurrently enrolled in RESP 250, and must have a minimum QPA of 2.50. Field experiences must be approved in advance by clinical site respiratory care program officials. RESP 299 is offered as credit-no record.

Non-Degree Programs

Online Radiologic Sciences and Sonography Prerequisite Programs

These non-degree programs are designed to meet the American Society of Radiologic Technologists (ASRT) 15-credit general education pre-requisite requirements for students attending hospital-based radiologic technology programs and a portion of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) 12-credit general education requirements for students attending accredited sonography programs. These pre-requisite programs should not be confused with the 120-credit Bachelor of Science in Medical Imaging Sciences degree program that has concentrations in radiologic technology and ultrasound.

Clarion University’s on-line courses may be taken before or during enrollment in the individual’s clinical program of choice. However, before enrolling in Clarion University general education courses, interested persons should consult with the program director of the radiography or sonography program that they hope to attend. The program director will be able to provide information on any unique program specifications regarding the general education requirements for students applying to their program.

While completion of post-secondary general education credits may demonstrate academic adeptness and thus facilitate formal acceptance to a radiography or sonography program, *completion of Clarion University’s general education courses does not guarantee admission to a radiography or sonography program.*

ASRT General Education Requirements

Students who are attending or who plan to attend an accredited hospital-based school of radiologic technology are required by the ASRT to meet their “global content objectives for radiography” through completion of 15 credits of postsecondary general education.

The ASRT mandates written/oral communication and mathematic/analytical studies that may be met with the Clarion University courses shown below. Depending on individual math proficiency as demonstrated by Clarion’s math placement exam, students may be required to complete a basic algebra course prior to taking MATH 112.

ASRT GENERAL EDUCATION REQUIREMENT	CLARION UNIVERSITY ON-LINE COURSE
Mathematical/Logical Reasoning	MATH 112 (Excursions in Mathematics, 3 credits)
Written/Oral Communications	ENG 111 (Writing II, 3 credits)

The ASRT permits individual radiography programs to choose how their students will meet the remaining nine credits of required general education electives. Below is the course plan for meeting the balance of required general education at Clarion University.

ASRT GENERAL EDUCATION OPTIONS	CLARION UNIVERSITY ON-LINE COURSE
Information Systems	CIS 217 (Applications of Microcomputers, 3 credits)
Social/Behavioral Sciences	PSY 211 (General Psychology, 3 credits)
Natural Sciences	BIOL 111 (Basic Biology, 3 credits)

The above courses are offered online by Clarion University’s Office of Virtual Campus each Fall and Spring semester. Courses meet entirely online for 15 weeks, require no travel to Clarion University, and are taught in English only.

JRC-DMS General Education Requirements

Students attending JRC-DMS-accredited sonography programs are required to complete the following college-level courses:

- a. Algebra, statistics, or higher mathematics course
- b. General college-level physics and/or radiographic physics
- c. Communication skills
- d. Human anatomy and physiology

While all of the above courses are offered on campus, math and English courses may be completed online.

Depending on individual math proficiency as demonstrated by Clarion’s math placement exam, students may be required to complete a basic algebra course prior to taking MATH 112.

Continuation for a Bachelor’s Degree in Medical Imaging Sciences

Students who complete the radiography or sonography pre-requisite programs may apply the credits toward Clarion University’s Bachelor of Science in Medical Imaging Sciences degree program before or after completing a 24-month JRCERT-accredited hospital-based school of radiologic technology or JRC-DMS accredited sonography program.

Online Course Options

For additional information about online course options, please reference the Clarion University–Virtual Campus section of this catalog.

School of Nursing and Allied Health

COOPERATIVE EDUCATION INTERNSHIP PROGRAM

Co-op study is a general term applied to voluntary service, part-time and full-time employment, and internship experiences.

Co-op courses (300-level) are based upon job assignments that are related to the student's university major or career objectives and provide learning experiences as stated in their respective learning objectives. Faculty coordinators from academic departments advise students, review learning objectives, and evaluate term reports.

Cooperative education procedures are sufficiently flexible to provide for student and employer needs. The program is designed to enhance self-realization and direction by integrating classroom study with planned and supervised experiences in educational, professional, business, and cultural learning situations outside the formal classroom environment. The joint efforts of faculty, participating employers, and students are directed toward the achievement of an educational experience where classroom studies and appropriate work experience combine to reinforce each other. Prerequisite: junior standing, minimum 2.5 QPA, or approval of the appropriate college dean. Offered each semester and on demand.

An internship (400-level) is usually a culminating experience for seniors. Interns should have completed most of the required courses in their major area of study. Internships operate somewhat like student teaching, with the emphasis upon application of knowledge in a realistic setting rather than acquisition of new material. In other words, internships are begun with most entry-level skills at least partially developed, and the intern is expected to render supervised professional services. The length of an internship may be less than a semester or as long as a year. Many internships carry no salary or stipend.

Because internships are tailored to fit the demands of the respective professions as well as the needs of individual students, each college and department is encouraged to establish requirements and criteria for acceptance in the program and for successful completion which go beyond the minimal requirements established by the cooperative

education/internship program. Each college is expected to enforce its own requirements through its departments.

Minimally, students must have senior standing and a minimum 2.50 QPA or approval of the department.

CREDIT HOURS for co-op/internship registration carry from one to 12 credits as arranged. Any combination of co-op/internship credits earned in excess of 12 semester hours cumulative total will be entered on student records but will not be counted as credits required for graduation.

GRADING of co-op/internship experiences normally carries "credit-no record" evaluation of work performance. Individual students may petition to receive a letter grade at the time of registration. This policy does not apply to the credit-no record regulation promulgated as part of the university grading system.

The Harrisburg Internship Semester (THIS)

The Harrisburg Internship Semester (THIS) is a prestigious and paid internship in which the student gains an applied understanding of how Pennsylvania state government operates by interning with a branch of government related to his or her major. Each semester, students from schools in the Pennsylvania State System of Higher Education are selected to take part in this valuable program. The student selected from Clarion University each semester receives a stipend that covers room and board, tuition, and most travel expenses while completing 15 credits in independent study and cooperative education. Sophomore or junior students from any major will be considered as long as their overall QPA is 3.00 or above. This internship is particularly valuable for individuals interested in government work, graduate school, or a legal career. Applications for each academic year are solicited during the previous Spring Semester. Further information is available through the Office of the University Provost, 115 Carrier Hall or the THIS faculty coordinator, Dr. Barry Sweet, 306 Founders Hall.

Co-op Course Numbers

COOP 301: Co-op/Anthropology	COOP 330: Co-op/Management in Library Science	COOP 363: Co-op/Vocal
COOP 401: Intern/Anthropology	COOP 430: Intern/Management in Library Science	COOP 463: Intern/Vocal
COOP 302: Co-op/Philosophy	COOP 332: Co-op/Early Childhood	COOP 364: Co-op/Music Marketing
COOP 402: Intern/Philosophy	COOP 432: Intern/Early Childhood	COOP 464: Intern/Music Marketing
COOP 303: Co-op/Political Science	COOP 333: Co-op/Elementary Education	COOP 366: Co-op/Physics
COOP 403: Intern/Political Science	COOP 433: Intern/Elementary Education	COOP 466: Intern/Physics
COOP 404: Co-op/Sociology	COOP 334: Co-op/Secondary Education	COOP 368: Co-op/Psychology
COOP 404: Intern/Sociology	COOP 434: Intern/Secondary Education	COOP 468: Intern/Psychology
COOP 305: Co-op/Social Work	COOP 335: Co-op/Education	COOP 369: Co-op/Counseling
COOP 405: Intern/Social Work	COOP 435: Intern/Education	COOP 469: Intern/Counseling
COOP 306: Co-op/Art	COOP 336: Co-op/English	COOP 370: Co-op/Student Life Services
COOP 406: Intern/Art	COOP 436: Intern/English	COOP 470: Intern/Student Life Services
COOP 308: Co-op/Biology	COOP 337: Co-op/Writing Center	COOP 371: Co-op/Student Affairs
COOP 408: Intern/Biology	COOP 437: Intern/Writing Center	COOP 471: Intern/Student Affairs
COOP 309: Co-op/Environmental Science	COOP 338: Co-op/Geography	COOP 372: Co-op/Academic Support Services
COOP 409: Intern/Environmental Education	COOP 438: Intern/Geography	COOP 472: Intern/Academic Support Services
COOP 310: Co-op/Outdoor Education	COOP 339: Co-op/Earth Science	COOP 374: Co-op/Human Relations
COOP 410: Intern/Outdoor Education	COOP 439: Intern/Earth Science	COOP 474: Intern/Human Relations
COOP 311: Co-op/Science Education	COOP 340: Co-op/Urban Planning	COOP 376: Co-op/Special Education
COOP 411: Intern/Science Education	COOP 440: Intern/Urban Planning	COOP 476: Intern/Special Education
COOP 312: Co-op/Chemistry	COOP 341: Co-op/Health and Safety	COOP 377: Co-op/Rehabilitative Sciences
COOP 412: Intern/Chemistry	COOP 441: Intern/Health and Safety	COOP 477: Intern/Rehabilitative Sciences
COOP 313: Co-op/Communication	COOP 342: Co-op/Physical Education	COOP 378: Co-op/Learning Disabilities
COOP 413: Intern/Communication	COOP 442: Intern/Physical Education	COOP 478: Intern/Learning Disabilities
COOP 314: Co-op/Advertising	COOP 343: Co-op/Recreation	COOP 379: Co-op/Mental Retardation
COOP 414: Intern/Advertising	COOP 443: Intern/Recreation	COOP 479: Intern/Mental Retardation
COOP 315: Co-op/Journalism	COOP 344: Co-op/Coaching	COOP 381: Co-op/Speech Pathology
COOP 415: Intern/Journalism	COOP 444: Intern/Coaching	COOP 481: Intern/Speech Pathology
COOP 316: Co-op/Public Relations	COOP 345: Co-op/Athletic Training	COOP 382: Co-op/Audiology
COOP 416: Intern/Public Relations	COOP 445: Intern/Athletic Training	COOP 482: Intern/Audiology
COOP 317: Co-op/Radio	COOP 346: Co-op/Water Safety	COOP 383: Co-op/Speech
COOP 417: Intern/Radio	COOP 446: Intern/Water Safety	COOP 483: Intern/Speech
COOP 318: Co-op/Television	COOP 347: Co-op/Sport Management	COOP 384: Co-op/Theatre
COOP 418: Intern/Television	COOP 447: Intern/Sport Management	COOP 484: Intern/Theatre
COOP 319: Co-op/Computer Science	COOP 348: Co-op/History	COOP 386: Co-op/Nursing
COOP 419: Co-op/Inter-Computer Science	COOP 448: Intern/History	COOP 486: Intern/Nursing
COOP 320: Co-op/Accounting	COOP 349: Co-op/Humanities	COOP 387: Co-op/Medical Technology
COOP 420: Intern/Accounting	COOP 449: Intern/Humanities	COOP 487: Intern/Medical Technology
COOP 321: Co-op/International Business	COOP 350: Co-op/Library Science	COOP 389: Co-op/Continuing Education
COOP 421: Intern/International Business	COOP 450: Intern/Library Science	COOP 489: Intern/Continuing Education
COOP 322: Co-op/Banking	COOP 351: Co-op/Media	COOP 390: Co-op/Academic Services
COOP 422: Intern/Banking	COOP 451: Intern/Media	COOP 490: Intern/Academic Services
COOP 323: Co-op/Finance	COOP 352: Co-op/Mathematics	COOP 391: Co-op/Financial Aid
COOP 423: Intern/Finance	COOP 452: Intern/Mathematics	COOP 491: Intern/Financial Aid
COOP 324: Co-op/Management	COOP 355: Co-op/French	COOP 392: Co-op/Research
COOP 424: Intern/Management	COOP 455: Intern/French	COOP 492: Intern/Research
COOP 325: Co-op/Marketing	COOP 356: Co-op/German	COOP 393: Co-op/Admissions
COOP 425: Intern/Marketing	COOP 456: Intern/German	COOP 493: Intern/Admissions
COOP 326: Co-op/Real Estate	COOP 358: Co-op/Spanish	COOP 395: Co-op/Life Experience
COOP 426: Intern/Real Estate	COOP 458: Intern/Spanish	COOP 495: Intern/Life Experience
COOP 327: Co-op/Economics	COOP 360: Co-op/Music	COOP 396: Co-op/Paralegal
COOP 427: Intern/Economics	COOP 460: Intern/Music	COOP 496: Intern/Paralegal
COOP 328: Co-op/Administration	COOP 361: Co-op/Piano	COOP 397: Co-op/Planetarium
COOP 428: Intern/Administration	COOP 461: Intern/Piano	COOP 497: Intern/Planetarium
COOP 329: Co-op/Office Management	COOP 362: Co-op/Instrumental	COOP 398: Co-op/Women's Studies
COOP 429: Intern/Office Management	COOP 462: Intern/Instrumental	COOP 498: Intern/Women's Studies

General Studies Courses

Courses carrying the GS label are interdisciplinary in nature or are courses which do not fit into any of the usual academic disciplines. They are taken as free electives, as personal development and life skills under general education, or may with departmental approval be substituted for required courses in some majors.

- GS 109:** *FOREIGN LITERATURE IN TRANSLATION* **3 s.h.**
Offered by the Department of Modern Languages and Cultures, listed as FR 109, GER 109, or SPAN 109.
- GS 123:** *INTRODUCTION TO LOCATING AND ORGANIZING INFORMATION* **3 s.h.**
Examines information sources and information organization; methods for surviving information explosion. Recommended as an elective for non-library science students. Not creditable toward library science specialization. GS 123 earns credit toward graduation only when taken by freshmen and sophomores. Juniors and seniors will receive credit, but such credit will not count toward graduation. On demand.
- GS/ECON 140:** *CONSUMER ECONOMICS* **3 s.h.**
Explores major aspects of personal financial management, including budgeting of income and expenditures, transactions and relations with banks and other lending institutions, insurance and retirement plans, home ownership, personal taxes, savings, and investment plans. Alternate years.
- GS 222:** *CREATIVE PROBLEM SOLVING* **3 s.h.**
Investigates the elements of solving a variety of problems, beginning with closed problems such as puzzles or cryptograms and progressing through simple games and complex games to the complexities of open-ended problems of personal and political life. Emphasizes development of proficiency in dealing with new situations and techniques through actual practice. No prerequisite. Each semester.
- GS/BIOL 225:** *HUMAN GENETICS* **3 s.h.**
Examines Mendelian genetics and the inheritance of human genetic disease. Investigates the anatomical, physiological, biochemical, and genetic basis of human diseases, including diabetes, atherosclerosis, and cancer. Analyzes the genetic basis of mental illness. Explores behavioral genetics and sociobiology, recombinant DNA, "gene therapy," and medical ethics. Non-majors course for students who wish to know more about human genetics than is available in basic biology. May be particularly useful for students in anthropology, rehabilitative sciences, psychology, sociology, and special education. Prerequisite: One semester of biology or permission of instructor. Annually.
- GS 230:** *SPECIAL TOPICS: THE EUROPEAN MIND* **3 s.h.**
Offered by the Department of Modern Languages and Cultures, listed as FR 101, GER 101, SPAN 101. See course description under appropriate language listings.
- GS 242:** *YOU AND THE LAW* **3 s.h.**
Surveys the major fields of law. Emphasizes historical development, basic legal principles, legal theory and procedure, and their relation to the individual. Business administration majors may not take this course. Annually.
- GS/SPED 262:** *INTRODUCTION TO SERVICE LEARNING* **3 s.h.**
Provides an overview of service learning. Presents history, legislation, and theory relevant to service in addition to the components and standards of service learning. Students will be prepared for service through readings in the subject area, sensitivity training, conflict resolution, and etiquette. Students will then spend 30 hours in community-based service activity at three of five priority sites. Students will reflect in writing upon their service and will attend weekly seminars. Prerequisite: ENG 110. On demand.
- GS 411/CHEM 211:** *SCIENCE AND SOCIETY* **3 s.h.**
Describes the process of science as an ongoing and continuously developing means of describing the natural world. Examines what science is and how it is done. Promotes science literacy. Emphasizes written and oral communication skills as well as the ability to understand important topics in science, along with the policy and ethical questions raised. Open to students in all academic areas.

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University of Ghana, B.Sc.; University of Ife-Nigeria, M.B.A.; University of Maryland Eastern Shore, M.S.;
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INDEX

- A -

Academic Information	16
Academic Opportunities	23
Academic Passport Principles	17
Academic Policies	31
Academic Renewal	36
Academic Skills, Courses	26
Academic Standing	32
Academic Enrichment, Department for	26
Accelerated Program	29
Accounting	134
Accreditation Listing	iii, 45, 131, 148, 190, 197
Activities Board, University	7
Activity Fee	www.clarion.edu/finaid/
Address/Correspondence, Clarion University	2
Administration Technology, A.A.S.	186
Admissions	16, 179
Early Admission Programs	20
Freshmen	16
High School Students Early Admission	20
International Students	20
New Student Orientation	21
Non-degree Admissions	20
Readmission	34
Special Program Requirements	36, 91, 179, 192
Transfer Policy	17
Advanced Placement	18
Advancement, The Center for	4
Advisement	28, 182
Allied Health	197
Alumni Association	5
Anthropology	47
Applied Technology	186
Art	49
Arts and Sciences, College of	45
Arts and Sciences (Venango Campus), Department of	186
Associate Degrees	183, 186, 192
Athletic Training, Sports, and Wellness	11
Athletic Coaching Level III, Minor	12
Athletics, Intercollegiate	8
Athletics and Fitness (Venango Campus)	182
Attendance, Class	33
Auditing of Courses	34
Automobiles, Regulations	15, 182
Auxiliary Operations, Department of	14
<h2>- B -</h2>	
Baccalaureate Degree, Second	36
Bachelor of Arts (see Arts and Sciences, College of)	45
Bachelor of Science (see Arts and Sciences, College of)	45
Bands	15
Billing Statements	www.clarion.edu/finaid/
Biology	53
Biology, Secondary Education	155
Black Studies, Minor	87
Buildings, Campus	235, 236
Business Administration, A.S.	184
Business Administration, College of	36, 131
<h2>- C -</h2>	
Calendar	vii
Campuses	2, 3, 180, 235, 236
Career Services Center	9, 181
Carlson Library	5, 232
Center for Academic Achievement	26
Center for Advancement	4
Center for Leadership and INvolvement	5
Center for Residence Life Services	7
Center for Student Development	9
Center for Sports and Recreation	12
Center for Teaching Excellence	29
Certificate Programs	179
Certification, Teacher	151
Chemistry	61
Chemistry, Secondary Education	155
Child Care (Venango Campus)	181
Choir, University	15
Clarion University Alumni Association	5
Clarion University Council of Trustees	207
Clarion University Foundation, Inc.	5
Clarion University–Pittsburgh Site	29
Clarion University–Venango Campus	3, 178
Clarion University–Virtual Campus	3, 29
Class Standings	34
CLEP (College Level Exam Placement)	18, 180
Club Sport Program	11, 182
Coaching Education	11
Communication Sciences and Disorders	175
Communication Studies	65
Community Service	6
Computer Information Science	72
Concentrations	21–23
Conference and Event Services	14
Continuing Education	29, 179
Continuing Education (Venango Campus)	179
Cooperative Education	204
Cooperative Engineering Program	75, 92
Cooperative Internship	204
Counseling Services; Personal Counseling	9, 182
Course Auditing	34
Course Descriptions	
Academic Skills Courses	26
Accounting	135
Activity and Recreation	12
Anthropology	47
Art	50
Art History	52
Athletic Coaching Education	13
Athletic Training Education	12
Biology	55
Business Administration	140, 144
Chemistry	62
Chinese	105
Communication Studies	66
Computer Information Science	72
Criminal Justice	185
Pre-K–4 th Grade (Early Childhood) Education	156
Earth Science	85
Economics	137
Education	159
English	76
Environmental Studies	59
Finance	141
French	99
General Studies	60, 64, 105, 139, 142, 174
Geography	82
German	101
Global Understanding	104
Health and First Aid	165
Health and Physical Education	163
History	87
Honors	24

Intervention Specialist Graduate.....	167
Intelligence Analysis.....	139
Library Science.....	165
Management.....	144
Marketing.....	146
Mass Media Arts, Journalism, and Communication Studies.....	68
Mathematics.....	93
Medical Technology.....	60
Mid-Level and Early Childhood Major.....	163
Mid-Level Education.....	161
Music.....	106
Nursing.....	194
Philosophy.....	111
Physical Science.....	60, 64, 116
Physics.....	113
Political Science.....	117
Psychology.....	120
Real Estate.....	142
Rehabilitative Science.....	171
Respiratory Care.....	201
ROTC, Advanced.....	97
ROTC, Basic.....	96
Science Education.....	162
Sociology.....	123
Social Work.....	125
Spanish.....	102
Special Education.....	172
Speech Pathology and Audiology.....	175
Sports Management Education.....	13
Theatre.....	127
Women and Gender Studies.....	130
Course Numbering.....	34
Credit by Examination.....	18
Credit Hour Load, Maximum.....	34
Credit-No Record Courses.....	34
Credit Transfer Policy.....	17
Criminal Justice.....	116
Criminal Justice, A.S.....	185
Curricula	
Allied Health.....	197
Applied Technology.....	186
Arts and Sciences.....	45
Arts and Sciences (Venango Campus).....	186
Associate of Science.....	183
Nursing.....	192
Business Administration.....	132
Cooperative Education.....	204
Education and Human Services.....	148
General Education Distribution.....	44
Graduate Programs.....	177
Nursing.....	192
Rehabilitative Sciences.....	169
	-D-
Debate Team.....	15
Degree Listings.....	21, 45, 132, 149, 177, 183
Degree Programs	
Allied Health.....	197
Arts and Sciences.....	45
Business Administration.....	132
Education and Human Services.....	149
Graduate Studies.....	177
Nursing.....	190
Undergraduate.....	21
Venango Campus.....	183
Dining Services.....	5, 183
Directories.....	207
Disability, Non-discrimination on the basis of.....	31
Disability Support Services.....	26
Dramatic Organizations.....	15
Dual Enrollment.....	21

	- E -
Early Admission.....	20, 179
Early Childhood Education.....	154, 183
Early Start MBA Option.....	147
Earth Science.....	84
Earth Science, Secondary Education.....	155
Ecology and Evolutionary Biology.....	54
Ecology Laboratory, Pymatuning.....	55
Economics, B.A.....	75
Economics, B.S.B.A.....	136
Education.....	154
Education and Human Services, College of.....	37, 148
Educational Talent Search Program.....	27
Elementary Education.....	154
Employment, Student.....	40
Empowerment Program.....	181
Engineering, Cooperative.....	75, 92
English.....	75
English, Secondary Education.....	155
English Language Proficiency, International Students.....	20
Environmental Education.....	155
Environmental Geoscience.....	85
Environmental Studies.....	54
Events Coordination.....	14
Examination, Credit by.....	18
Extended Programs.....	29
Exernships.....	153
	- F -
Facilities.....	235, 236
Faculty Listing.....	212
Family Education Rights and Privacy Act.....	30
Fees.....	www.clarion.edu/finaid
Film Studies, Minor.....	99
Finance.....	140
Financial Assistance.....	39, 179
Financial Information.....	39, 179
Appeal Procedure.....	41
Employment.....	40
Grants.....	39
Loans.....	40
Refunds.....	41
Residency.....	www.clarion.edu/finaid
Schedule of Charges.....	www.clarion.edu/finaid
Scholarships.....	42
Semester Fees.....	www.clarion.edu/finaid
First Year Student Programs—Transitions.....	28
Food Services.....	6, 181
Foundation, Inc., Clarion University.....	5
Fraternity and Sorority Affairs.....	6
French.....	98
French, Secondary Education.....	156
Freshmen, Admission of.....	16
Freshman Orientation.....	21
	- G -
Gemmell Student Complex.....	6, 235
General Education.....	41
General Information.....	1
Campuses.....	2, 3
Core Values.....	2
Mission.....	1, 178
Vision.....	2
General Science, Secondary Certification.....	156
General Studies Courses.....	60, 64, 105, 139, 142, 174, 206
Geography.....	82
Geographic Information Systems, Minor.....	82
Geography and Sustainable Planning.....	82
Geology/Earth Science.....	84
German.....	99
Golden Eagle Pre-College Program.....	27

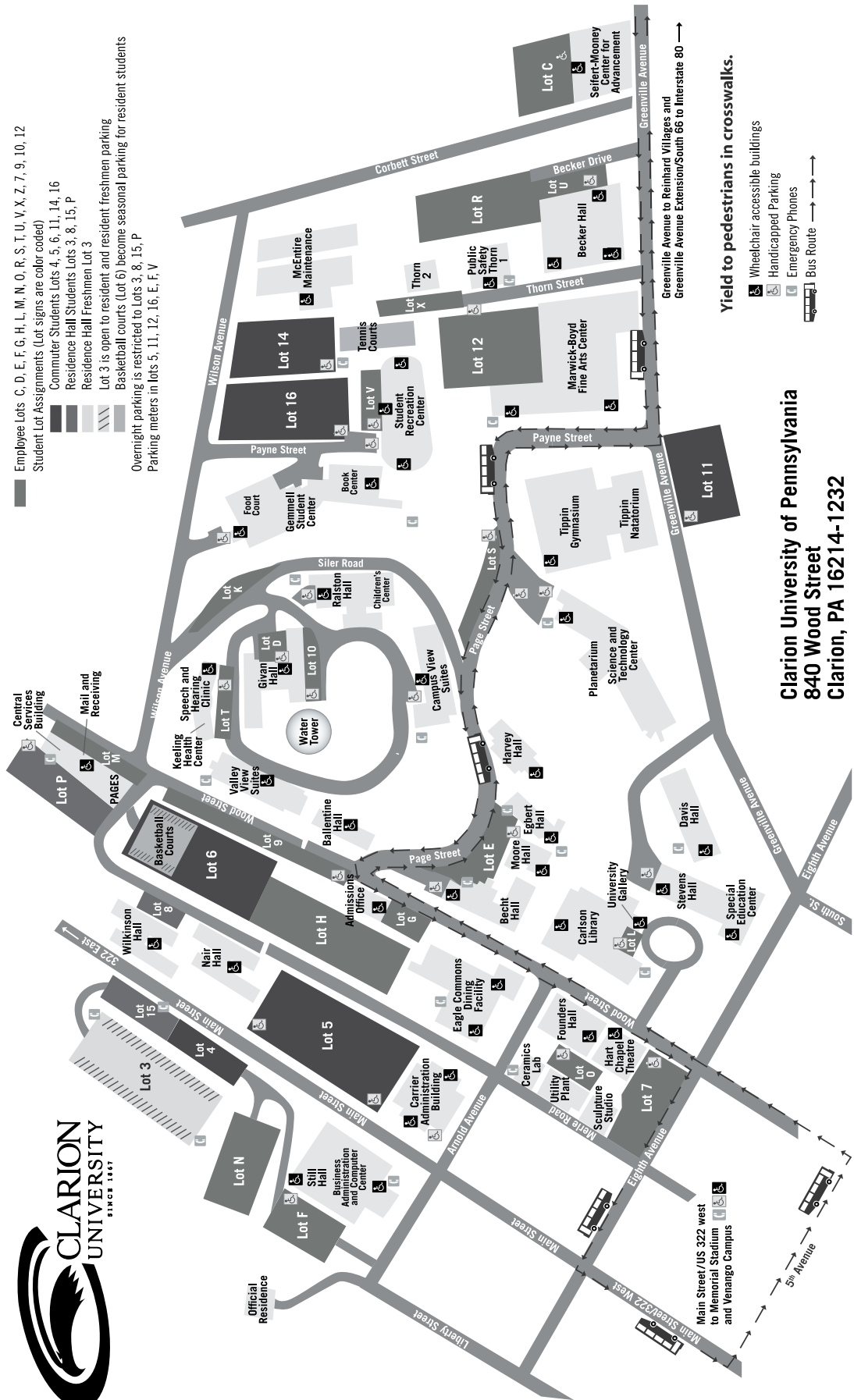
Government, Student (Venango Campus).....	182
Grade Release Policy	30
Grading System.....	32
Graduate Studies	177
Graduation Requirements	35
Graduation Standards, College of Education.....	151
Grants	39
- H -	
Health and Counseling Services	9, 10
Health and Physical Education	163
Health Careers, Pre-Professional Studies	119
Health Center, Keeling.....	10
Health Insurance	10
High School Juniors and Seniors Early Admission	20, 179
History.....	87
Honesty Policy, Academic	31
Honors, Academic.....	33
Honors Program.....	23, 180
Housing.....	7, 181
Human Services	150
- I -	
Independent Study	34
Individualized Instruction	34
Industrial Relations	143
Industrial Technology	187
Information Systems, Computer	72
Insurance, Health and Accident	10
Intercollegiate Athletics	8
International Baccalaureate Credits	19
International Business	137
International Education.....	25
International Students-English Competency.....	20
Inernships (also see individual programs)	116, 153, 204
Intramural Programs	8
- J -	
Judicial and Mediation Services	7
Jump Start Education Program	20, 179
K -	
Keeling Health Center.....	10
Kids In College	180
- L -	
Languages, Modern.....	98
Latin American and Caribbean Studies, Minor.....	47
Leadership, Minor.....	143
Leadership–Military Science	96
Leadership Development and Training	6
L.E.A.P. (Leaders' Early Admission Program)	20
Learning Support Center (Venango Campus).....	181
Liberal Arts Degree Plus Teacher Certification	46
Liberal Studies, B.S.	12, 91, 149, 186
Libraries	14, 182
Library Science	92, 165
Library Science in Liberal Arts.....	91
Loans	40
- M -	
Main Campus Facilities	235
Majors	
Applied Science	186
Administration Technology.....	186
Industrial Technology	186
College of Arts and Sciences.....	45
Anthropology.....	47
Art.....	49
Biology	53
Chemistry	61
Computer Science.....	72
Economics, B.A.	59
Economics, B.S.B.A.	136
English.....	75
Environmental Biology	53
Environmental Geoscience.....	85
French	99
Geology	84
History	87
Information Systems.....	72
Liberal Arts Plus Teacher Certification	46
Liberal Studies.....	91
Mass Media Arts, Journalism, and Communication Studies.....	65
Mathematics	92
Medical Technology	53
Military Science	96
Molecular Biology and Biotechnology	53
Music Education.....	168
Philosophy	111
Physics.....	113
Political Science	117
Psychology	120
Sociology.....	123
Spanish	99
Theatre.....	126
College of Business Administration.....	131
Accounting	134
Business Economics.....	136
Finance	140
Industrial Relations.....	143
International Business	137
Management	143
Marketing	146
Program Requirements	36
Real Estate.....	140
College of Education and Human Services.....	148
Pre-K–4 th Grade (Early Childhood) Education	154
Mid-Level Education: Grades 4-8.....	155
Elementary Education/Special Education	172
Environmental Education	155
Health and Physical Education	163
Library Science.....	165
Music Education.....	168
Program Requirements.....	37
Rehabilitative Sciences.....	170
Secondary Education.....	155
Biology	155
Chemistry	155
Earth Science	155
English	155
French	156
General Science	156
Mathematics	156
Physics	156
Social Studies	156
Spanish	156
Special Education/Early Childhood Education	169
Pre-K–4 th Grade (Early Childhood).....	171
Special Education (Pre-K–8 th Grade).....	171
Special Education/Rehabilitative Sciences	169
Speech Pathology and Audiology.....	175
School of Nursing and Allied Health	190
Allied Health	197
Nursing, A.S.	192
Nursing, B.S.	193
Medical Imaging Sciences.....	198
Respiratory Care.....	199
Major, Second	34
Management.....	143
Maps	234, 236
Marketing.....	146

Mass Media Arts, Journalism, and Communication Studies	65		
Master's Degrees.....	147, 177		
Mathematics.....	92		
Mathematics, Secondary Education.....	156		
Meal Plans.....	www.clarion.edu/finaid		
Medical Services.....	10		
Medical Technology Program Requirements.....	36		
Military Opportunities	23, 163		
Military Science, ROTC	23, 96		
Minority Student Services.....	28		
Minors			
Ancient Mediterranean Studies.....	87		
Anthropology	47		
Art	49		
Art History	49		
Athletic Coaching Level III	12		
Biology.....	54		
Black Studies.....	87		
Business Administration.....	143		
Chemistry.....	62		
Computer Science	72		
Ecology/Evolutionary Biology.....	54		
Economics	136		
English: Creative Writing.....	76		
English: Literature.....	76		
English: Professional Writing & Rhetoric.....	76		
English: Writing	76		
Environmental Sustainability	113		
Film Studies	99		
French.....	99		
Geography	82		
Geography Information Systems.....	82		
Geography Sustainable Planning	82		
German.....	99		
History.....	87		
Information Systems	72		
International Business	137		
Leadership.....	143		
Leadership–Military Science	96		
Leadership–Entrepreneurial	143		
Mathematics	92		
Molecular/Cellular/Organismal Biology.....	54		
Music.....	105		
Nanotechnology	113		
Philosophy.....	111		
Physics.....	113		
Political Science.....	117		
Psychology	120		
Sociology.....	123		
Social Work.....	123		
Spanish.....	99		
Sports Management.....	12		
Sustainability Science and Policy	113		
Theatre: Acting, Technical	127		
Women and Gender Studies.....	130		
Mission, Clarion University			
Modern Languages and Cultures	99		
Music.....	15, 105		
Music Education	168		
Music Organizations	15		
		- N -	
Nanotechnology, Minor	113		
Non-credit Offerings	180, 203		
Non-degree Admissions	20		
Non-discrimination	2, 31		
Nursing, A.S.: 192			
Nursing, B.S.....	193		
Nursing and Allied Health, School of.....	190		
Nursing, Department of	190		
		- O -	
Off-campus Courses and Programs.....	29		
Organizations, Student.....	6, 182		
Orientation, Freshman/New Student.....	21		
Orientation–Project P.A.S.S. (Venango Campus)	181		
		- P -	
Paralegal Studies.....	184		
Parking and Automobile Regulations	15, 182		
Payment Plan	40		
Philosophy.....	111		
Physical Science Courses.....	60, 64, 116		
Physically Challenged Students.....	26		
Physics	113		
Physics, Secondary Education	156		
Pittsburgh Site.....	29		
Planetarium	235		
Plagiarism	31		
Policies, General and Academic	30, 32		
Political Science.....	116		
Pre-College Program, Golden Eagle.....	27		
Pre-K–4th Grade (Early Childhood) Education.....	154		
Pre-Professional Studies	56, 118		
Printing and Graphics Express Services	5		
Privacy Act.....	30		
Probation, Academic.....	32		
Proficiency Examinations	19		
Program Requirements, Special.....	36		
Project PASS (Promoting Academic Success for Students)	181		
Psychology.....	120		
Pymatuning Laboratory of Ecology.....	56		
		- Q -	
QPA (Quality Point Average, Calculation).....	32		
		- R -	
Radiologic Sciences, Non-degree	203		
Radiologic Technology	198		
Readmission	34		
Real Estate	140		
Records, Student	30		
Recreation Center.....	8		
Refund of Fees	41		
Refund of Financial Assistance.....	41		
Rehabilitative Sciences	170		
Rehabilitative Services.....	184		
Renewal Policy	36		
Repeat Grade Policy	35		
Residence Halls.....	7, 235, 236		
Residence Life Services.....	7		
Residency Requirements/Rules	36		
Room and Board	www.clarion.edu/finaid		
ROTC–Military Science.....	23, 96		
		- S -	
Satisfactory Progress			
Academic Probation.....	32		
Academic Suspension	32		
Readmission	34		
Scholarships (see also individual programs).....	42, 98		
Second Major.....	34		
Secondary Certification Specialization	155		
Secondary Education	155		
Senior Citizens	34		
SeniorLink.....	180		
Social Studies, Secondary Education.....	156		
Social Work.....	123		
Sociology	123		
Sonography	203		

Sorority and Fraternity Affairs	6	Student Support Services	26
Spanish	98	TRIO Student Support Services	27
Spanish, Secondary Education	156	TRIO Upward Bound	28
Special Education	169	Suspension Policy, Academic	32
Rehabilitative Sciences, B.S.	170		
Rehabilitative Services, A.S.	184	- T -	
Speech and Dramatic Organizations	15	Teacher Certification	46, 151, 155
Speech Organizations	15	Teacher Education	150
Speech Pathology and Audiology	175	Application Procedures	155
Sports and Recreation	8, 182	Certification	151
Sports Information	5	Conceptual Framework	150
Sports Management	12	Conditions for Assignment	153
Staff Listings	207	Pre-K-4th Grade (Early Childhood)	154
State System of Higher Education Board of Governors	207	Middle-Level Education: Grades 4-8	154
Student Activities (see Student Affairs)		Environmental Education	155
Student Advisement	28	Music Education	168
Student and University Affairs	4, 181	Secondary Education	155
Athletic Program	8	Certification Fields	155
Club Sport Program	8	Biology	155
Intercollegiate Athletics	8	Chemistry	155
Intramural Programs	8	Earth Science	155
Athletic Training, Sports, and Wellness Program (ATSW)	10	English	155
Athletic Training Education Program	11	French	156
Athletic Coaching Education Program	11	General Science	156
Sports Management Program	12	Mathematics	156
Career Services Center	9	Physics	156
Center for Advancement	5	Social Studies	156
Clarion University Foundation	5	Spanish	156
Counseling Services	9	Theatre	15, 126
Food Service	6	THIS (The Harrisburg Internship Semester)	204
Fraternity and Sorority Affairs	6	Transcripts	30
Gemmell Student Complex	6	Transfer Policy (see also individual programs)	17, 192
Health and Counseling Services	9, 10	Transitions Services	28
Housing	7	TRIO Student Support Services	27
Insurance, Health	10	TRIO Upward Bound Program	28
Judicial and Mediation Services	7	Tuition	www.clarion.edu/finaid
Leadership and Involvement	6		
Libraries	14	- U -	
Marketing and Communication	5	Undergraduate Degree Programs	22
Music Ensembles	15	University Activities Board	7
Orientation, Student	21	Upward Bound Program	28
Parking and Auto Regulations	15		
Printing and Graphics Express Services	5	- V -	
Recreation Center, Sports and	8	Venango Campus	3, 178
Residence Life Services	7	Venango Facilities	236
Speech and Dramatic Organizations	15	Veterans' Affairs	25
Sports Information	5	Virtual Campus	3, 29
University Activities Board	7	Visiting Student Program	25
Student Records	30		
Student Support Services Program, TRIO	27	- W -	
Student Recreation Center	8	Winter Intercession	25
Student Senate	182	Withdrawals, Course	35
Student Services at Venango Campus	181	Withdrawals, University	35
Student Teaching	153	Women and Gender Studies	130
Study Abroad	25	Work Study	40
Suhr Library, Charles L.	14, 182	Writing Center, The	28, 183
Summer Session	25		
Support Services	26		
Academic Enrichment, Center for	26		
Disability Support Services	26		
Educational Talent Search	27		

**Venango Campus Map
and Facilities**

- Employee Lots C, D, E, F, G, H, L, M, N, O, R, S, T, U, V, X, Z, 7, 9, 10, 12
- Student Lot Assignments (Lot signs are color coded)
- Commuter Students Lots 4, 5, 6, 11, 14, 16
- Residence Hall Students Lots 3, 8, 15, P
- Residence Hall Freshmen Lot 3
- Lot 3 is open to resident and resident freshmen parking
- Basketball courts (Lot 6) become seasonal parking for resident students
- Overnight parking is restricted to Lots 3, 8, 15, P
- Parking meters in Lots 5, 11, 12, 16, E, F, V



Yield to pedestrians in crosswalks.

- Wheelchair accessible buildings
- Handicapped Parking
- Emergency Phones
- Bus Route

Clarion University of Pennsylvania
840 Wood Street
Clarion, PA 16214-1232



Main Street/US 322 west
to Memorial Stadium
and Venango Campus

5th Avenue

CLARION CAMPUS FACILITIES

ADMISSIONS BUILDING, located on Wood Street, houses Admissions operations.

BALLENTINE RESIDENCE HALL, located on Wood Street.

BECHT RESIDENCE HALL, located on Wood Street.

BECKER HALL, at Greenville Avenue and Thorn Street, houses the Communication and the Computer Information Science departments.

CAMPUS VIEW SUITES is on top of the hill and offers kitchen and living room areas in each unit (two to four students per unit).

CARLSON LIBRARY is on the central campus just off Wood Street (page 14). A complete renovation and expansion of the library was completed in February 2002. It houses the Art Gallery, the Library Science Department, the library faculty and staff, and the university's collection of resource documents.

CARRIER ADMINISTRATION BUILDING, at Main Street and Arnold Avenue, houses offices for the president and staff, the provost and academic vice president and staff, the vice president for finance and administration and staff; Office of the Registrar, Business Office, Human Resources, Social Equity, Student Accounts, and Graduate Studies.

CENTER FOR ADVANCEMENT OF CLARION UNIVERSITY, situated at the corner of Greenville Avenue and Corbett Street, houses the offices of alumni development and the Clarion University Foundation, Inc.

CENTRAL SERVICES, located on Wood Street, houses publications/printing offices and mailroom operations.

DAVIS HALL, on Greenville Avenue, has classrooms and offices for the English Department and the Modern Languages Department.

EAGLE COMMONS DINING FACILITY, located at the corner of Ninth and Wood Streets, seats 530 and offers a variety of food styles. The lower level features a Starbucks and a meeting room which can hold up to 100 visitors.

EGBERT HALL is on the central campus behind Carlson Library. It has administrative offices for the vice president for student affairs and staff, the Department of Counseling, the Office of Financial Aid, Career Services, and the Housing Office.

FOUNDERS HALL is situated at the corner of Wood and Ninth and houses classrooms and a computer laboratory for the History Department and the Political Science, Sociology, and Philosophy Department as well as laboratories for the Anthropology program and studios for the Art Department. Offices for the Dean of Arts and Sciences are on the second floor.

GIVAN RESIDENCE HALL, situated on the hill along with the Suites, and Ralston Hall.

HART CHAPEL THEATRE is located on Wood Street and Eighth Avenue.

HARVEY HALL is on center campus and houses offices and classrooms for the Psychology Department and Women's Studies program.

HAZEL SANDFORD ART GALLERY is located on the Greenville Avenue side of the Carlson Library. The permanent collection covers all media, with special emphasis in photography, prints, artist's books, and ceramics. Exhibitions are scheduled throughout the academic year as well as summer sessions with regular gallery hours weekdays and Sundays.

JOSEPH P. GRUNENWALD CENTER FOR SCIENCE AND TECHNOLOGY, central campus west of Harvey Hall and houses offices, classrooms, and labs for AGES, Biology, Chemistry and Mathematics, as well as the planetarium.

KEELING HEALTH SERVICES CENTER, off Wilson Avenue behind Givan Hall, has modern clinical and infirmary facilities located on the first floor. The Speech Pathology and Audiology Diagnostic Center is located on the ground floor. The Speech Pathology and Audiology Department is also located on the first floor.

MARWICK-BOYD FINE ARTS CENTER, which stands at the south corner of Payne Street and Greenville Avenue, provides a 1,600-seat auditorium, Little Theatre, Sandford Art Gallery, classrooms, studios, multimedia studio, laboratories, and office and exhibit areas for Art, Music, and Speech and Theatre Departments.

MCENTIRE MAINTENANCE BUILDING on Wilson Avenue south of Payne Street, is the center for physical plant maintenance, the motor pool, and maintenance shops.

MOORE HALL, east of Carlson Library, serves as a reception and meeting facility.

NAIR RESIDENCE HALL provides housing for 450 students and is located on Main Street.

RALSTON RESIDENCE HALL is situated on the hill above Gemmell Student Complex.

RECREATION CENTER, is located on Payne Street. It contains basketball courts, a running track, a fitness center, and a climbing wall.

REIMER STUDENT CENTER/JAMES GEMMELL STUDENT COMPLEX, located at the north corner of Wilson Avenue and Payne Street, provides offices for student government and student activities personnel. Also housed in this area are the bookstore, snack bar, meeting rooms, and other recreation areas for students. There is also a multi-purpose room.

SPECIAL EDUCATION CENTER, at the corner of Eighth and Greenville, houses the reception area of the Educational Appraisal Clinic and therapy rooms, along with some faculty offices and classrooms.

STEVENS HALL, off Greenville Avenue, provides classrooms and faculty offices for education and human services programs and offices for the College of Education and Human Services.

STILL HALL BUSINESS ADMINISTRATION AND THE LEWIS COMPUTER CENTER are in a single building on the north campus at Main Street and Ninth Avenue housing the information center, computing services, the Office of the College of Business Administration, and the Departments of Accountancy, Administrative Science, Economics, Finance/Real Estate, and Marketing.

THORN HOUSES 1 AND 2, located on Thorn Street, house the Public Safety Department (1) and plant services, facilities planning, and purchasing operation (2).



TIPPIN GYMNASIUM-NATATORIUM stands at the north-center of Payne Street and Greenville Avenue. It houses classrooms, offices, and gym areas for the Health and Physical Education Department, a 3,600-seat arena for varsity sports, and a natatorium.

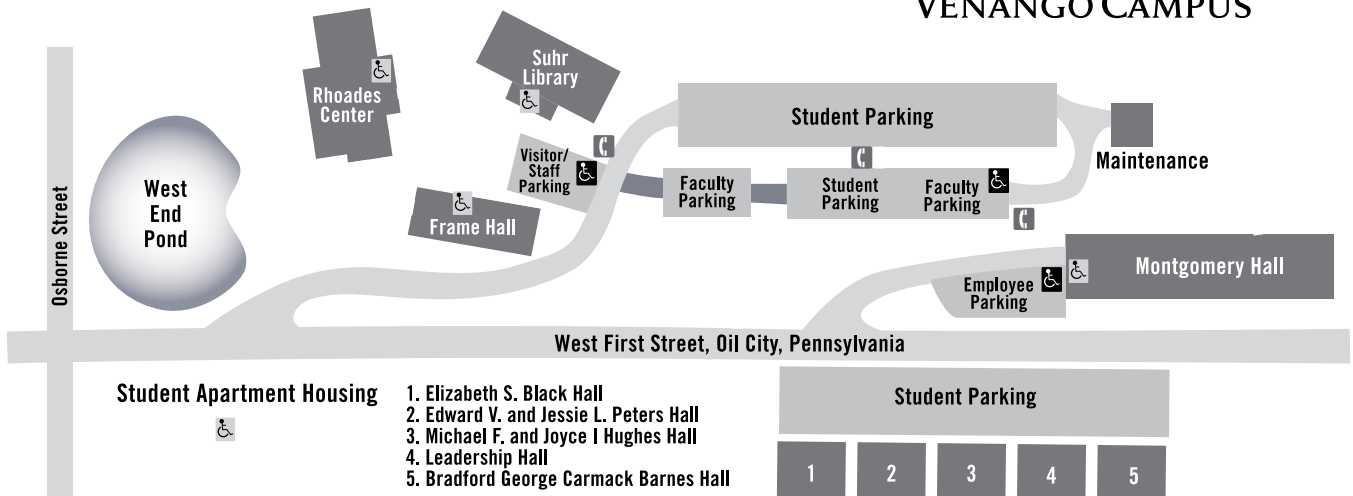
VALLEY VIEW VIEW SUITES is located on Wood Street and offers kitchen and living room areas in each unit (two to four students per unit).

WILKINSON RESIDENCE HALL houses 450 students on the Main Street area of the campus.

Venango Campus

Clarion University of Pennsylvania
1801 West First Street
Oil City, PA 16301-3297

-  Handicap Parking
-  Wheelchair Accessible Building
-  Emergency Phones



VENANGO CAMPUS FACILITIES

RICHARD C. FRAME HALL, the original building, contains the Administrative Office, Admissions and Financial Aid, Continuing Education, Marketing and University Relations, and classrooms.

ROBERT W. RHOADES CENTER houses Student Affairs and provides student lounge and recreation facilities, a gymnasium, an auditorium-theatre, a bookstore, a fitness center, and food services.

THE CHARLES L. SUHR LIBRARY (page 182) houses the library, study facilities, faculty offices, the Department of Applied Technology, and the Barbara Morgan Harvey Center for the Study of Oil Heritage.

MONTGOMERY HALL is a modern classroom and office building which houses the School of Nursing and Allied Health, Career Services, the Computer Laboratory, the Learning Support Center, interactive video classrooms, career services, and faculty offices.

ELIZABETH S. BLACK HALL, EDWARD V. & JESSIE L. PETERS HALL, MICHAEL F. AND JOYCE I. HUGHES HALL, LEADERSHIP HALL, AND BRADFORD GEORGE CARMACK BARNES HALL are attractive, upscale apartment buildings offering students a private bedroom and a semi-private bathroom with shared kitchen facilities and living and dining areas. Each apartment is fully furnished and houses four students.